THE
SCHOOL JOURNAL
ORGAN OF THE DEPARTMENT OF PUBLIC INSTRUCTION AND OF THE STATE TEACHERS' ASSOCIATION.

Vol. 59. SEPTEMBER, 1910. No. 3

THE HIGH SCHOOL DEPARTMENT OF THE STATE ASSOCIATION.

PROCEEDINGS OF RECENT ANNUAL SESSION HELD AT ERIE.

THE High School Department convened in the Chamber of Commerce on Thursday afternoon at 4.30 o'clock, after returning from the excursion on Lake Erie, Principal Charles S. Davis, of Steelton, in the chair.

A RATIONAL COURSE FOR PENNSYLVANIA HIGH SCHOOLS

was the subject of the first paper, which was presented by Prof. W. C. Graham, of the Wilkinsburg high school, as follows:

The history problem is one of the most distressing in the high school situation. To one who desires to select a history course for a given high school, many difficulties are presented, but to one who has been asked to give advice as to a course of history for high schools in general, a much more difficult task is given. Your chairman of the programme committee further increased my embarrassment by instructing me that I was to put emphasis on the word *rational*. I took this to be a gentle hint that he wanted no fine-spun theoretical paper but that he wanted me to get down to business and write something to the point. However, I have taken the simplest method in dealing with the problem—merely discussing the difficulties as they have been presented to me as a teacher and principal of a high school.

I will confine my paper to a discussion of a history course for high schools having a four-year course, as I am one of those who think that the state of Pennsylvania should not recognize a school as a high school until an approved course of four years has been established. But aside from the problems of the so-called first-, second- and third-class high schools, there are a number of features of the history question that cannot be disposed of so readily. We have the general course or finishing course for those pupils whose school days end with the high school; then there is the college preparatory or academic course; and finally, the high school which, because of conditions, can offer but one course to all pupils.

Let me deal with five of the leading difficulties which confront us. These I take to be as follows: First, the amount of history to be required or offered; second, the amount of time to be given to each division of history; third, when history is to be begun in the high school; fourth, the difficulty as to text-books; fifth, the difficulty as to methods. In taking up these points I will attempt to deal with them from the three positions as already indicated: The general course, the academic course, and the one-course high schools.

The first question is: How much history should be required or offered in the rational course? In the general course I would require three years of history—ancient, mediæval and modern, and American history with civics. The general course, since it is a finishing course, should not have a less amount of history, and more cannot be given without slighting your other departments. You notice that I omit English history. I assure you that I do this only because I think it is expedient. Most of the mediæval and modern history text-books cover English history moderately well. If the course is to be shortened, English history as a separate subject is the logical one to eliminate.

2. Since the colleges are responsible for the rounding out of the college preparatory students' education, I would offer in

the academic course just as much and whatever divisions of history the selected college demands or suggests.

3. No one can make a course that will prepare for all the colleges and at the same time provide for a general education. At the best such a course must be a compromise. As some of the colleges demand two years preparation in history for entrance, and as most of them will give credit for two years work, I suggest that two years of history be required in the one-course high school. As United States history has been taken in the grammar school by all high school students, and as universal history is necessary for a general education, I suggest that ancient history, mediæval and modern be the history requirements in this course. I would make the provision, however, that one-course high schools should demand thorough preparation in United States history and elementary civics.

The second question to be decided is the amount of time to assign to each division of history. I say that this *is* a question, simply because I see that some high schools pretend to aviate through a subject in two or three recitations per week for one year. I believe that no *teacher* of history will advocate less than five recitations per week during the year. I am quite certain that no principal feels that good work is being done in less time. My recommendation is that five recitations per week for a period of not less than thirty-six weeks be assigned to each subject of history in all of the courses in the high school. If the class is composed of not over twenty-five members a period of forty-five minutes will do; if the class has more than twenty-five members, a sixty-minute recitation is imperative. Remember, fellow teachers, I was asked to suggest a *rational course.*

The third problem which confronts us is the question of the time when history is to be started in the high school. My answer to this is that it should not be begun until the second year. My reasons for this, are as follows: (1) As text-books are now written and as college requirements now stand ancient history, which is the logical history to teach first, is a very difficult subject. (2) Students of the first year have not yet learned the habit of independent study. (3) Because of the above reasons many students who are compelled to take history in the first year either fail, or acquire a thorough dislike for all history.

If you must have history in the first year take your choice of the following, with preference in the order named. Elementary civics; an easy text in English history; biographical study of great historical characters and a side line of current events having in mind the stimulation of a desire to study universal history.

The fourth question is that of text-books. Some one may say, Well, what have text-books to do with a course of study? My answer is that it is very hard to suggest a rational course in history that will go with the text-books we have on the market to-day. The wording is altogether too difficult for high school pupils. More and more the material of real interest to them is being cut out and questions of a philosophical and technical nature are being substituted. The trouble lies in the fact that the demand for text-books is created by the colleges. Entrance Boards and a few of the professors of our higher institutions of learning, instead of by high school men who are much more conversant with the requirements of students of a high school age. The Doctor of Philosophy who writes the text-book cheerfully supplies the demand, as it is much easier to write in his own vocabulary than in one suited to young people. Then, too, the book sells better, as the same one will do for colleges and high schools. Frankly, how would you like to be a boy or girl and be forced to get your history out of some of the text-books in our schools? *Fine* reading for *teachers,* but oh! how different for fifteen or sixteen year-old boys and girls!

I believe that most of the colleges would be reasonable in their demands if they, as well as we, were not so easily dominated by a few of the institutions which seemingly want to crowd upon the high schools everything that takes study to master it. I suggest that we unite in a demand for text-books in history suited to the average students of a high school age. Let them be made more interesting.

The fifth problem relates to *methods* in teaching history in high schools. I understand that Mr. Stockton, of McKeesport, will discuss the question largely from this standpoint, so I will only stop to make a few suggestions. It is my belief that the topical method of teaching is the best for high schools. The lecture system? No. Teachers as a rule talk too much. Outlines? Great time-consumers, unless you can get an outline printed to accompany the text. Outline maps? Yes, but do not overwork them or you will kill the interest. Note books? Yes, but be careful not to overdo this plan. Collateral reading? Yes, but make certain that the students have the facilities for doing the reading before making the assignment. *Always keep all your old books* when you change

texts. Have in your library from two to six copies of your best reference books.

To summarize: (1) Three years history, ancient, mediæval and modern, and American with civics should be required in the general course; the subject may be made elective for pupils who intend to go to college: two years—ancient, mediæval and modern—should be required by the one-course high school. (2) Five recitations per week for not less than thirty-six weeks should be given to each division of history. (3) Under existing conditions history should be started in the second-year class. (4) Most of our text-books are unsuitable for students of a high school age. The fault is our own, as we allow ourselves to be dominated by a few of the universities and colleges. (5) Helps such as outline maps, note books, outlines, etc., should be used judiciously or they will destroy interest in the subject.

RATIONAL COURSE IN HISTORY FOR HIGH SCHOOLS.

Prof. Herbert Stockton, in further discussing the subject said:

You have just listened to an able discussion of "A Rational Course in History for Pennsylvania High Schools" from the standpoint of a principal. Prof. Graham approached the subject as one who has to provide and arrange a curriculum in which history is to hold its proper and just place in a scheme of education. It is my purpose, as a teacher of history, not so much to lay out a course of study for high schools—although I shall give my views on that—as it is to suggest a further and more complete division or analysis of what is commonly called the Course of Study. It will also be a part of my purpose to make some observations on the treatment of history. For, to my notion, no course of study can be rational that stops with the bare skeleton of curriculum, that does not analyze the subject itself and the method of its presentation.

What we shall teach and how we shall teach it depends fundamentally, (1) upon what we conceive our subject to be, and (2) on the aim of our instruction.

What then are we teaching? What is history? Various answers have been given to these questions and perhaps no one will ever arrive at a definition that can be defended against all others. But whether an agreement of terms is possible or not, nevertheless each one must make a choice if he be worthy of the name of teacher. Perhaps no one will dispute the assertion that the deeds or doings of humanity form the subject-matter of history. But a mere record of the past life of humanity is not history. History is a result of the treatment of the subject-matter by the human mind. History is a form of human thought, and a form that is essentially scientific in character. In its scientific aspect, history is a purely intellectual, objective, impersonal examination of the subject-matter to establish the real relation of things. The events of history must be looked upon as changes in the life of humanity, and it is the province of historical thought to deal with these changes, their causes, relations and consequences. When you question a thing in regard to its causes, its relation to other things and the consequence of these relations you are proceeding along scientific lines.

Each event or change, however, is not limited to cause, relation and consequence and with that ceases to have significance, for each consequence becomes a new cause or active force in the production of a new result. Thus we have in scientific history a series of changes, connected and coherent, a movement, or better still a process of development.

Having then, to my own satisfaction at least, decided what is history we may take up the second question, What is the aim of instruction in history? If we accept the definition that history is scientific in character, we must confine it to the studies that appeal primarily to the intellect. The determination of causes, relations and consequences I have already pointed out is a purely intellectual process. But what use is such a conception of history in education? What use is any scientific subject? You answer that other scientific studies, such as chemistry and biology, are intensely practical, History on the other hand has but little practical value, though many educators have put the emphasis there. Such practical values have been suggested as cultivation of patriotism, comprehension of references in newspapers and literature, and the "lessons of history" on present problems. To my mind we will have to find some other motive than its practical value for teaching history if it is to hold a very high place in education. By no means are we all agreed as to what education shall do for us intellectually. Because of this disagreement we are bringing higher education into disrepute in comparison with technical education, its object being more manifest, namely, to create the ability to do some definite thing. But what is intellectual training to do for us? Prof. Allen in the discussion of this point says, "We want our schools to lay for the next generation the foundations of sound thinking." Prof. Allen here implies that sound thinking is

a thing absolutely necessary for the final salvation of the race. He implies that man does not yet know the things that belong to his peace. He implies that a right educational system "will be concerned somewhat less with the actual children in the schools than with their children and grandchildren." What will sound thinking do for humanity? It will free the intellect from presumption and prejudice and conventional modes of thought. It will rid men of opinions and mental habits formed automatically. In fact, under sound thinking will largely depend all human advancement and betterment. Incidentally from sound thinking will issue the power of expression. Accurate speaking is impossible without first sound thinking.

History seems to me to be a subject where sound thinking is peculiarly imperative. "It compels us to think in averages and centuries, and forces on us a sense of the extreme complexity of every social phenomenon, forces on us a habit of weighing evidence and of suspending judgment, compels us to analyze and to be logical and constantly to endeavor to draw a sharp line between what we know and what we do not know."

I am aware that high school pupils do not possess the maturity of judgment essential for original or creative work in history. Yet the beginning always must be determined by the end—in this case sound thinking. With a good text and under instruction that keeps the end in view the pupil can at least gain a knowledge of historical method and organization. He will cease to see disjointed and unconnected events but will see a thread of unity running through and binding together the whole subject-matter. Besides, the judgment will find exercise in weighing, valuing and properly ranking the influence of events upon the manifest line of development. The ability to look upon history as an organic whole, the ability to see history both synthetically and analytically is, then, the contribution of high school instruction to sound thinking.

In the consideration of a high school course, not only must we bear in mind the aim of history teaching but also what preparation we may assume the pupils to have had in the grade school. We may assume, I think, that they have mastered some of the great facts of American history, that they are familiar with some of the simpler movements such as explorations, settlements, union, slavery question, and that they have some skill in interpretation of individual facts. They cannot be expected to know much of the more difficult problems of our national life such as tariff, finance, party principles, nor can they be expected to have more than a rough framework so far as organization is concerned.

It is evident that with the meager training that a pupil has received in the *organization* of history in the grade school that a one-year course in high school is entirely inadequate. The one-year course, if given at all, should come in the Junior or Senior year where maturer minds can more readily and clearly appreciate the idea of development.

In addition to inadequate training afforded by the one-year course, it does not permit of a rational understanding of history. The Committee of Seven when they suggested a four-year course had in mind a course that would be consecutive and cumulative. The four-year course as formulated by them gives the pupil a survey of the whole field of history. The beginnings of institutions are not confined to a particular time or place but are rooted in an antiquity more remote than written record can recall. To their development each people, each century, has made its contribution. To gain, then, a correct idea of history, the process must be viewed as a whole. In the broad sense there is no such thing as American history any more than there is such a thing as the Atlantic Ocean. To style it such is purely arbitrary and is to create an isolation that does not exist. American history is only a phase of the world's history. Hence to study American history to the exclusion of other history is to have a narrow and distorted view of the long process of civilization. It is quite similar to reading the last two or three chapters of a novel and then imagining that you know the whole story.

I believe that if we are to make a rational course in history we must accept the recommendations of the Committee of Five, appointed two years ago to consider the report of the Committee of Seven and suggest alterations if advisable. The committee recommends and hopes that a three-year course in history may be required, although that involves scarcely more than a summary of the ancient world. The tentative course which they have suggested embraces in the first year a rapid survey of the ancient world, devoting the greater part of the year to mediæval and modern history; in the second year it embraces English history; and in the third year American history and civics. A stand for a minimum course of three years may seem extreme, but we can all remember that it was not so many years ago that English occupied equally as lowly a position as is now al-

lotted to history. Eventually, however, our educators arrived at a rational state of mind, and have formulated a rational four-year course for English in our high schools. I am not in a position to suggest the changes in a curriculum necessary for the three-year course. There is too great a diversity of curriculums to attempt it. When we have a state course I doubt not that history will be given a higher place—I hope, a minimum course of three years.

I started out by saying that I would suggest a course of study that goes beyond naming the subjects to be offered, and would advocate a division or analysis of the subjects themselves. Probably the greatest problem that confronts the history teacher is the distribution of time and attention. He knows that not all periods, sub-periods and topics are of the same value either from the standpoint of knowledge or pedagogy. Nor is the text-book always a safe guide, for text-books are far from being in accord in this respect. It is this wide disagreement over the *important* that makes the problem. Teachers have their ideas of value, the examiner has his, the college professor has his, and the university professor his, so that it is almost impossible to make any other division of time than an equal division, if you try to please any one beyond yourself. Pupils passing from one high school to another because of this disagreement are voted to have had poor instruction. High School graduates taking entrance examinations are likewise esteemed.

It is time that teachers and educators get together, analyze the subjects, and come to some understanding on the relative importance of periods, sub-periods and topics, so that a sensible distribution of time and attention may be made possible. The Committee of Five, in their preliminary report of December 31, stated that it was their intention to suggest definite topics for the study of the five centuries before Charlemagne. The statement was greeted with applause, and I am sure that if the Committee of Five would prepare a syllabus for the entire course of history, with a maximum and minimum provision, which would find acceptance by all the states, and by the colleges as well, they will have done more to fix a standard and working basis for history than has been done in all the centuries past. The New England History Teachers have prepared a syllabus which I understand has been a great force for standardizing and unifying history instruction. Several colleges have made this syllabus the basis of their entrance examinations. But why argue in favor of a syllabus, for any argument in favor of a manual or course of instruction on any subject will hold good as an argument for a syllabus. If the Committee of Five does not make a syllabus that can be endorsed by our state authorities, I hope a state syllabus will be prepared, of course contingent upon the adoption of a state course of study. I believe that it would make history teaching more systematic, uniform and definite, in fact make it possible to teach history as an organized body of knowledge.

I shall now take the liberty of making a few observations on methods. I heartily favor maps, drawings, diagrams, outlines, pictures or anything else that will make teaching more concrete. However, many of these devices can be carried to extremes and made to consume time that is sorely needed for drill and discussion. My position on map-drawing is that it is not for the sake of brushing up the pupil's geography but as an aid in the understanding and the interpretation of historical knowledge.

I am not so sure of the advisability of a program of collateral reading and source work. I maintain that it is our first duty to secure the most satisfactory text possible and then insist upon its thorough mastery. The one charge that we hear against history in the secondary schools is that the pupils do not have accurate and definite knowledge of essential facts and principles. Every teacher has to fight incessantly against the expression of mere generalities and against the unappreciation of specific and necessary detail. I believe that a general program of collateral reading has a tendency to a still greater vagueness, (1) because it means less concentration, (2) because different accounts confuse the average pupil. Let us ever bear in mind, then, that if we are going to lay the foundations for sound thinking we must first inculcate the habit of mastery of accurate, specific, thoroughgoing knowledge. But outside reading I am told develops the critical ability. I do not believe this is true of the average pupil. In fact I have known wide readers among adults without much critical power. I do not believe the average boy or girl reads from a critical standpoint. If he gets anything from his reading it will likely be additional facts. And may I add that criticism of the interpretation of facts is the important thing, and, such being the case, to pit our fourteen-year-olds against the learned historian is a rather unprofitable exercise. Plenty of training can be found for the powers of discernment in the text itself. To get the pupil to dis-

tinguish between the important and the unimportant, to apprehend the significant word or phrase, seems to me to be work better adapted to them.

If we are to attempt collateral reading at all we must go about it differently. We must not expect that one book in the library will do for a class of thirty. If a book with excerpts from various authors, affording parallel readings with the text, could be put into the hands of each pupil it might be more practical. Even then one day's recitation a week on the book should be held. Or a regular period in the library should be provided where the class might under the eye and direction of the history teacher read the assigned material.

In closing allow me to give a summary of my paper. I approached my subject first through a statement of my theory of history and of the aim of history teaching. History, I said, is a form of scientific thought with the life of humanity as its subject-matter. The aim of history instruction is to promote sound thinking. The contribution of secondary schools to sound thinking is the ability to realize history as an organic whole. A three-year course, then, should be the minimum. A complete and rational course of study should make provision for a state syllabus, principally to establish a working basis for agreement on the relative importance of the subject-matter. The syllabus of course is contingent upon a state course of study. Lastly, I discussed collateral reading as a part of the course of study, insisting, first of all, upon the mastery of the text; and secondly, denying the value of collateral reading as an aid in the development of the critical faculties in the average pupil; and lastly, suggesting practical ways for accomplishing collateral reading if it is attempted.

VOCATIONAL WORK IN SATISFACTION OF COLLEGE ENTRANCE REQUIREMENTS.

This live topic was discussed by Dr. Cheesman A Herrick in an address advocating a much needed change in college entrance requirements. He said:

We have come back again and again to this question of college admission this afternoon. This morning we ran against it. It has come to be the worst bug-a-boo of high school teachers. No topic during the last twenty years has been as much discussed and has remained farther from a satisfactory solution. Occasionally we catch a gleam of light but there is still much dissatisfaction between the schools and the colleges, and much mutual recrimination.

When I began school work in Iillinois, an inspector from the University visited our high school. He was a college-trained man, with the old, conventional ideas about grammar and mathematics. He set up a standard which was adopted in many places "What difference does it make whether a boy goes to college or not?" he said. "We are fixing the best course possible for everybody." So a narrow course was foisted on the schools which all the students were compelled to follow. This represents the first stage of the development of the controversy.

Then a revolt against this state of things took place. The boys and girls refused to abide by any such standard as that. The next phase of development was the introduction of vocational schools as a distinctive class. Twelve years ago in Philadelphia I took charge of a vocational school. It was told me at once that, of course, the graduates did not want to enter college, or they would have elected another course. But some of these boys should have gone to college. One chap stood out from among the rest as a boy of unusual ability. He graduated from the vocational course and received a free scholarship. He could not secure admission. He studied Spanish, but that was insufficient. I advised him to prepare himself in French, and by devoting six weeks in midsummer to that study, he prepared himself on two years' French and passed it. He took French in college and distinguished himself. He completed the college course with fine credit. He took a degree at Cornell, and last year went to Peru as special representative of the American school system to organize the school system of Peru, and later took the presidency of the University of Peru, at Cuzco. His career has been an eye-opener to me as to the possibilities of vocational training in developing the individual. I brought about the condition where vocational studies and Spanish were recognized as qualifications for college admission.

After some time I began to send as many as twenty per cent. of the students of this vocational school to college. They took engineering courses and made good. They made good in Latin. They entered the ministry. It is undemocratic to say that a boy who has taken a vocational course may not go to college. The results would be an educational aristocracy. The whole idea is false, and contrary to our institutions.

With the rapid growth of vocational schools there has come a strong demand from the community that vocational work should be recognized for college admission. There should be an organic relation between the school and the college all along

the line. The invitation to go to college should be extended to all. The experience of the universities of Pennsylvania, Michigan and other states in recognizing some vocational studies is a warrant for all that vocational schools do prepare for the higher institutions. As a representative of the University of Michigan said to me, "It is the business of the universities to accept the graduates of reputable high schools and take them on trial." That is as much as they could expect.

Now we are finding out the fact that the high schools are doing the best college preparatory work of any institutions.

At first high schools were not preparatory institutions and grew up in competition with preparatory schools. Yet in the universities, graduates of high schools have given evidence of superior capacity for scholarship. Presidents Eliot and Hadley both agreed to this. The University of Pennsylvania says that their best prepared students are from the Central High School of Philadelphia.

The vocationtal school, properly conceived, sets for itself just as high an educational ideal as is found in the classical high school Let me quote from Dr. Rollins, Second Assistant Commissioner of Education in New York: "I am in sympathy with the general recommendations of the report of your committee, and I can see no reason why the colleges should not agree to accept for admission worthily accomplished work along any of the lines suggested in your report, provided, of course, that the colleges should still insist upon thorough and adequate preparation in certain subjects that are fundamental to the successful pursuit of college work. Among these subjects, which would stand in the nature of absolute requirements, I should include English, elementary algebra, plane geometry, American history and civics, a foreign language, and at least one unit in science. With these as a foundation the colleges may well afford to permit a very wide range of electives in making up the rest of the entrance requirements." We could do our work with less worry if we had this idea.

President Northrop, of the University of Minnesota, says: "As showing the attitude of the University of Minnesota, I will say that of the subjects which you enumerate as desirable to be recognized by college entrance credits, Minnesota accepts without question botany, zoology, physiography, modern history, civics, economics and commercial geography. Minnesota also accepts the following when the subjects named are part of a definite four-year course of study: Mechanical and free-hand drawing, carpentry, pattern making, forging, machine shop practice, commercial law, stenography and typewriting, elementary bookkeeping, advanced bookkeeping, and accounting, household science and art."

David Snedden, State Commissioner of Education, says: "The present situation is most objectionable, and especially in the restrictive effects it is having on true high school development. I trust that in the near future the Massachusetts high schools will develop concerted action with regard to admission requirements and that the high schools themselves will in the future insist on saving what they can accomplish in four years of genuine work, leaving the colleges free to accept or reject their recommendations."

It seems to me if ordinary pupils go into the world, and are able to find a place to work, they are certainly fit to enter college instead. They are adequately equipped and culturally equipped. The colleges are wrong in this matter. We want to get away from the difference between education and college education. The elementary and high schools should soundly and properly educate their pupils, and then the colleges should take their product without interposing barriers, or they will stand in the way of the educational progress of the times.

The high schools of Pennsylvania and New York, in the large cities particularly, could by concerted action get what they want from the colleges. The resolution adopted in the New York High School Teachers' Association marks a step in advance. There are 40,000 pupils in the high schools of New York. The teachers are trying to have certain requirements adopted as constants, and a wide range of supplementary work in which vocational subjects occupy a large place.

I hope this association will line up with Massachusetts and New York, and states farther west, and have the fundamentals agreed on, as well as what may be elected. It would be a great service to education and the community.

ATHLETICS IN THE HIGH SCHOOL.

Mr. Fenton H. Dimmick, president of the Public Schools Athletic League of Buffalo, New York, spoke as follows upon this subject:

Athletics exist, and what is the school to do? It makes little difference whether we can agree that athletic sports are desirable. The boys will have their games whether the school approves or not. The boys will organize teams and play match games, and the school cannot prevent it. Opposition does not prevent athletics; it

only renders athletics harmful. It is futile to discuss whether we want to direct athletics; we must do it, and the only practical question is: Just what ought the school to do?

In the first place the school should furnish athletic facilities. The school should have ample grounds connected with it, or grounds conveniently near for the use of the school. These grounds should be provided with running track, football girdiron and a baseball diamond. In fact the field should be one big open air gymnasium. The grounds should be used as a playground for smaller children when not used by older students. If lawn or playground has to be sacrificed the lawn should be the first to go. Pupils take pride in a lawn, as well as their elders do, when it does not encroach upon their right to exercise.

The school building should be provided with a gymnasium fully equipped. At least there should be a reasonable amount of apparatus, such as horse, bars, ladders and rings. Shower-baths should be supplied with an unlimited quantity of hot and cold water. There should be a swimming pool at least 20 by 60 feet in dimensions. Gymnasium lockers should be provided and so arranged that clothing can be warmed and dried, if necessary.

The faculty should contain at least one person who is competent to assist the boys with their athletic work. There should be one lady teacher to render a like service for the girls. With this kind of an arrangement the school will not have to pay for athletic services, or depend upon the voluntary services of some of the teachers. All of the teams, and of both sexes, should receive their proper share of physical training by one who has at heart the best interests of the students and the school. I believe it to be a problem for educators and not athletic coaches With athletics arranged in this way the winning of trophies would become a secondary matter.

Stringent rules should be adopted for the control of high school athletics. The boys should be made to understand that the rules are for their guidance and not simply for the boys of another school. The principal should be the only person in authority, and he should exclude from his teams those whose conduct or character is unsatisfactory to him. Discipline should be provided where the boys break away from the principal's control, or where the principal fails to live up to the rules.

The rules should provide that contestants be *bonafide* students of the school and that they have attained a passing average on full work for the past term. This last provision prevents a boy who drops out of school at the close of an athletic season from competing again until he shall have attended school a full term with satisfactory record. It also prevents many of the boys from becoming negligent about their work.

The athletic teams should be maintained whether there is winning material or not; for athletics do not exist for the glorification of the school nor does the school exist for the purpose of directing athletics. Both exist for the proper development of the students, and they work harmoniously together for the same ends.

At least two periods per week of gymnasium work should be required of every student, except those physically unfit. These should be excused only on a doctor's certificate. These physically weak students should have exercise suited to their needs. It must be remembered that health comes from exercise and not from study. Instruction in the gymnasium should be during the school session.

Other athletic work should be more or less voluntary. The gymnasium should be open until 6 p.m. on school days and all day on Saturdays and holidays. A teacher should always be in charge of the gymnasium when it is open. Pupils turned loose to run riot in a gymnasium may get harm instead of good from their exercise.

The voluntary work naturally partakes of the nature of games. In the fall the boys should have football and the girls should have the opportunity to play tennis. These sports should end at Thanksgiving, and basketball games be then started. The gymnasium periods should be equally divided between the sexes. All who desire to play should be given a chance. The result will be many interclass competitions within the school. As the formation of teams takes shape slowly, a considerable number of pupils are kept interested and given considerable physical exercise before the interschool teams are made up. At the close of the winter season interclass tournaments should be held and they should be made the principal athletic event of the winter. Each sex should have its own night when a schedule of short games should be played for the school championship.

In the spring the students' attention should be turned toward the athletic field. They should be kept outdoors whenever possible and indoors in bad weather. Indoor baseball is a splendid game for girls. The game should be played in the open air, on the playground, when the weather is suitable.

Before a pupil is allowed to compete in any school athletic event he should be required to file a written permit from his parent. This makes for a better relation between the home and school, and frequently, when a parent is asked by his child to sign a permit, he looks the matter up, and comes to see the value of athletics to his child, and his attitude will change from potential opposition to active support. In case of doubt as to a child's physical fitness for games, in fact in all cases, a doctor's certificate should be required. Systematic physical examination of pupils is desirable. It serves as a protection and guide to those in charge of the work and at the same time indicates the nature and extent of exercise the child should take.

Athletic work not only improves physical conditions, it gives greater vigor to mental work. A sluggish mind is often aroused to a sense of mastery on the athletic field, and finding it can excel on the gridiron, wakes up and does well in the class-room. In athletics boys are made more manly. It is beneath the dignity of an athlete to play small tricks on the teacher. Pettishness is worked out and the mind is filled with nobler aspirations. Girls are made more robust and vigorous, walk more gracefully and lose nothing of the finer womanly qualities. Gymnasium exercises for girls render tight-lacing impossible. No verbal precept is necessary.

Some will ask: "How about accidents?" Such accidents will be less numerous than the injuries received in the unnoticed game of shinny. The danger to high school boys, in our large cities to-day, is not from physical injury in athletic games but in moral degradation. If a boy is killed in football the occurrence is published from one end of the continent to the other, but for a boy to travel the beaten path to ruin through the saloon door is too common an occurrence to make a news item for a country weekly. Jack and William are two boys you all know. There are many of them in the high schools. Are they not two boys in your own school? Jack plays football in the afternoon and goes home bruised and bloody. He rejects sympathy. All he wants is his supper and a chance to crawl off to bed. His good mother is alarmed when he comes home and says to herself: "This must stop! This is brutal! I will see the school board and the Humane Society! It must stop!" The good woman should be thankful that her son is safe in bed for one night at least. William plays pool from three to six in the afternoon and the animal energy in him is not spent. After supper he cannot study, he *must* do something. He goes up town, plays another game of pool, smokes cigarettes, swaps stories in front of the post-office or theatre, and returns home, with his clothes in perfect order but his fingers are stained, breath tainted and mind a little dull. His shoes are free from mud. His hair is nicely parted in the middle. He is the very ideal of manly beauty. His mother may meet him with the remark, "You are such a cute boy," but she tells her husband, "I think William must have smoked a cigarette this afternoon, but he is such a sensible boy, and so proud, I think he will come out all right." Jack is plodding the rugged road to sturdy manhood, and William is headed down the swift road to destruction.

The high school age is essentially an age when heredity appears as a factor of great importance in the child's life. The sins of his fathers appear in the boy and struggle for the mastery. The school cannot always talk frankly with the parents on the subject. When a man says., "I don't know what to do with my boy. He seems full of the very old Nick himself, the school can hardly respond. "It is even so; but you must be patient with your boy, for heredity is coming out strongly." However, the school cannot shut its eyes to this most important fact in the boy's development. The school must help this boy to overpower this hereditary tendency. The best way to cleanse the boy's mind and body is to give him plenty of athletic exercise and follow it up with a shower-bath and a race in the swimming-pool.

I am aware that the so-called "practical men" on the School Board and in city council will say, "Exercise is all right, but it ought to be taken at home at the wood-pile." This highly useful form of exercise is all right, but city boys have no chance at the woodpile. Games that call for alertness of mind, arouse enthusiastic interest, and give food for healthful thought in leisure moments are a better mental tonic.

In the high school the strain on body and nerves is intense. Examination, marking systems and college requirements, lack of sympathy, pride and depression of spirit are making our high schools a place of frequent failure.

Our friends tell us that gymnasiums and athletic fields cost money. Of course they cost money. Everything good in education does cost money, but when the schools demonstrate the real value of athletic work done with and as a part of education the money should be forthcoming. What is better worth an expenditure of money than a course of training that will make boys and girls into vigorous men and

women, with plenty of physical courage and physical endurance for the labor of life?

The trained athlete has a fund of intellectual reserve of no mean magnitude. He is deliberate, resourceful, can mass all the energies of his life in a moment and at a given point. Systematic physical training aims to assist the whole man toward symmetrical development, mental and moral as well as bodily. The world has little use for anæmic philosophers. It wants men with that abundance of good spirits, hopefulness and energy which comes with the perfection of physical condition. Athletics are worth what they cost. They should be encouraged. They must be controlled.

The hour for adjournment having passed there was no time for further discussion, and the department adjourned.

THE KINDERGARTEN.

THE Kindergarten department of the Association met on Thursday afternoon, in the Chamber of Commerce Rooms, the president, Miss Alice N. Barker, of Pittsburgh in the chair.

THE KINDERGARTEN AS A FORCE IN EDUCATION

was the subject of the following address by Supt. Clarence F. Carroll, of Rochester, New York.

Before we can consider the force of the kindergarten in education, it is desirable to look over the history and statistics of the kindergarten movement. To begin at the beginning we would have to think of the founder as he appeared in 1852. An old man, who had failed as a missionary, disappointed, yet charged with conviction. Froebel was a student, a thinker, a dreamer, a good teacher. You, however, know more than I do about it; but it is necessary to recall these facts in order to project the force of his life to-day. He was a good teacher, always reaching out after something he could not find. Later he brought out his book, which has had more influence on education than any other except the Great Book. And yet, if he had not organized a kindergarten, I believe the book he wrote would be covered with dust. Later, this kindergarten proved a financial failure, and Froebel was left without occupation. However, he found a few people whom he could teach, and the idea was scattered abroad, coming to America among other places. Among Froebel's followers in this country we could name Dr. William T. Harris.

Many years ago a superintendent in Oil City told me that they had a kindergarten. I found there a woman filled with enthusiasm. I do not know if you would recognize her as a kindergartner. She was a person of influence over her associates. She taught us Americans kindergartning, and I was a convert from that hour. Next, I went to New England and had charge of a large normal school. It had just been established, and I demanded a practice school and a kindergarten. In eleven years perhaps one hundred girls took the course, the school now graduating from twenty-five to thirty each year. In Worcester I found no kindergarten, and no women interested in the subject. I persuaded the board to establish one. Now Worcester is a kindergarten city. When I went to Rochester, ten years ago, the board was persuaded to adopt the kindergarten idea, and a kindergarten was opened in every school building. These illustrations show the rapid growth of the kindergarten idea in America in the last thirty years.

Specifically, what did Froebel do as a contribution toward establishing the kindergarten idea? Two things: the discovery of the instincts of childhood and the socializing of childhood. He recognized and emphasized what we may call child cravings and child tendencies or desires or preferences. The psychologist of to-day is busy tracing out these instincts. He finds from twenty to thirty of these activities—curiosity, imagination, etc. It would be an interesting task to find out when Froebel discovered these activities of the child mind. Froebel's book added the importance of the mother. Too much cannot be said about the mother instinct. My mother was a good kindergartner. She had great affection for her two boys, and enjoyed their garden, book and playthings with them. One of the great things of my life was helping to care for that garden. There were beautiful things in my home. I dwelt on them. These "instincts" of Froebel's had been noticed by the old writers—Homer and others. But Froebel was first to think of putting little children together in a school. Froebel's true greatness lay in that. He was, above all things, a great schoolmaster. Little details did not confuse him. He was a philosopher above all, looking for the unity of God in nature.

Froebel socialized childhood. Children are social by nature. Even their quarrels quickly give way to this instinct. Go into the foreign quarter on the east side of New York, and in some alley you will find ten, twenty or thirty children under the leadership of an older child. This is tyranny. On one of the wide avenues, no sooner does a child peep out of the door than mother or nurse quickly rushes after him. He comes in contact with no children except those of his own class. This is isolation.

Children need socializing, and Froebel showed us how to do it. He brought all sorts of children together. He gave us a type, an illustration. It seems to me a kindergarten is a beautiful place, especially in a new building. The chaste decorations, the sand table, the easy chairs, the piano, two women of delightful personality; the songs, the games, the prayer, the work of construction, self-activity everywhere—this is a kindergarten. Those are the things which I like to project when I think or talk of Froebel—the discovery of the instincts of childhood, and the socializing of childhood.

What can be said of the influence of the kindergarten? What has it accomplished? First, The educational system has been changed in some respects. Every sign of restraint and fear has disappeared in every good school. It is humiliating to compare kindergarten discipline with that of the public school of New York in 1875. Seven hundred pupils were taught by thirty teachers. Every day a long line of pupils visited the principal in the basement. They were punished in some way. It was awful, but we did not know any better in 1875. The same condition existed in Boston. Now a new era is in progress, and the kindergarten has brought it about. Second, Our curriculums have been enriched by music, drawing, games; playgrounds are everywhere found. A week ago, at a meeting of the playground association of America, fifteen hundred children sang together classic music. The people saw and heard. Next day fifteen hundred more were under the direction of our supervisor of games. That is owing to Froebel's influence. The school library, museum, picture-books—all owe their existence to the kindergarten.

The best thing the kindergarten has done is the attracting of attention to the individual. In our schools nowadays we take physically defective children out of the grades and put them into classes by themselves. We treat morally defective children in the same way. Teachers of these special classes are more highly paid than ordinary teachers. I should like to describe our school for truants. It has nearly 100 per cent. of attendance. The teachers interest the children in their work. Froebel's influence again. Parents are now organizing into civic clubs that take an active interest in the schools. This year, in our city, public playgrounds were secured by these organizations of parents.

To recapitulate: Froebel gave his life to the cause, was disappointed, but his convictions impressed others and have led onto a great awakening. He discovered childhood. He helped to redeem childhood by socializing it. He changed school discipline. He brought about changes in the course of study. He made the home a part of the school. He drew attention to the individual. Parents are interested in schools as never before.

Here are a few questions for consideration: Is there such a thing as a kindergarten in rural communities? How much territory has the kindergarten gained? Does the item of expense tend to prevent the growth of kindergartens? Are there differences of opinion which interfere with the growth of the idea? Is there a campaign on? Who is fighting the kindergarten's battles? What is the chief subject discussed at kindergarten meetings? Are there two kinds of kindergartens? What is the main object of our meeting here? Is the kindergarten progressing? What is necessary if it is to do its work well in the future? These are questions I want to leave with you. In my judgment the kindergarten is secure; but the rapidity of its growth depends on how we answer these questions.

THE RELATION OF THE KINDERGARTEN TO THE GRADE SCHOOLS.

Principal C. H. Garwood, of Pittsburgh, discussed this question in a paper here following:

It was at Watertown, Wis., in 1855, that Mrs. Carl Schurz formed the first kindergarten in America by calling in a few of her neighbors' children to play selected games with her own. Having been a pupil of Froebel, the German maiden had caught the spirit of the new education from her illustrious teacher who had broken away from the "book larnin'" methods of the past and had established his "garden speculations" in 1840.

After Miss Peabody returned from her study of the Froebelian methods in Europe in 1866 a few philanthropists established a kindergarten in Florence, Mass., but it was left to the keen foresight of the beloved Dr. Harris to have a kindergarten department form a part of the public school course of the St. Louis schools in 1873. Since that time educators throughout the country have been discussing the question and speculating upon the value and utility of the work done and the lessons learned by the tiny tots of tender years who attend the kindergarten. Little by little the movement has been spreading and slowly but surely the principles of free thought, free expression, and free utilization are being well worked out.

It is the purpose of this paper to call attention to the basis on which certain values are established, to indicate the relationship existing between kindergarten methods of

instruction as applied to public schools, and to show just how the kindergarten affects the primary grades of the public schools.

Always when called upon to discuss the relationship existing between the phases of educational work my mind immediately begins to try to ascertain values, so when your president, Miss Parker, requested me to speak upon the "Relation of the Kindergarten to the Grade Schools" I began to think of the *value* of the kindergarten and in so doing I realized that I was approaching a subject of keenest interest to many engaged in educational research.

In the business world we say a thing is valuable by comparison or through its utility. We decide the value of money by its purchasing power, the value of an intricate machine by its usefulness in manufacture. The value of pork can be fixed by the law of supply and demand—at least we are led to believe this is true—and, barring the cold storage proposition, no doubt it is. The business man is able at any time to tell you the specific value of the product of his plant or of his store. By casting accounts from time to time and striking balance sheets daily he is able to say whether his business is profitable or a failure. The doctor can easily rate the value of his services—to himself by his bank account, and to the people by the number who survive his treatment. The lawyer has no difficulty in knowing when he is playing a winning game. He either wins or loses, and that's all there is to it. The educator is not so easily accommodated in trying to fix values.

Recently I stood in the front door of the Homewood School and watched several skilled workmen carefully chiseling away the stone in the entrance of the splendid Homewood Carnegie Library across the street. As I watched the beautiful clusters grow under the matchless skill of the sculptor I could not help contrasting his work with mine. I realized that when the day was over those workmen knew that they had carved a definite number of clusters and could rate the value of their labor. I realized more fully my inability to fix the value of the work being done by the teachers under my care while shaping the destinies of the children whom they instruct from day to day.

During the past twenty years I have been endeavoring in every way possible to fix a standard of efficiency by which I could rate the value of work done by both teacher and pupil. In the case of the teacher the closest that I have been able to come to it so far is the standard set by the subtle, charming, God-fearing personality of a professionally trained teacher from whose life emanates the chief characteristics that were attributes of the Great Teacher when He said "Suffer the little children to come unto me." With such a personality placed in control, and with a roomful of little children who are as plastic as the potter's clay it is not difficult to determine the results.

The kindergarten stands for freedom—freedom of mind as well as of body. Through games and plays the child is led to know himself and the truths that God intended that he should know at his age. Instead of being told to sit upright in a seat and become *unnatural* he is permitted to move about the *naturalness* that is the divine right of any healthy young animal—which he is, but of a higher order. In his games he is introduced to the social instincts of the race. In his songs he becomes acquainted with the folklore of the past. With his blocks he builds concepts of form that can not be effaced. Nurtured in the sunlight of love and freedom he learns to express himself naturally and fully, to love truth, to be charitable to his playmates, and to feel that all mankind belong to one large family.

In 1900 Dr. John Dewey, of the University of Chicago, published a most remarkable little book entitled "The School and Society." It was the first press reports of the newer education tried out. In it he explains the results of having children from six to twelve use the kindergarten method of learning to do by doing. During a test period of three years Dr. Dewey brought the pupils into intimate knowledge of the occurrences of a well-regulated home. A recipe from a cook-book was worked out, a broom was made, a cow was milked in the presence of the children, the milk churned, and the butter made into a roll. Trees were drawn and painted from real trees, geography was studied from the hilltop and in the valley. The social life of different peoples was acted. By this plan he claims to have revolutionized educational methods. In contrasting the old and the new plan of having recitations Dr. Dewey says, "We all know what it has been—a place where the child shows off to the teacher and the other children the amount of information he has assimilated from the text-book. From the other standpoint, the recitation becomes preëminently a social meeting place; it is to the school what spontaneous conversation is to the home, excepting that it is more organized, following definite lines. The recitation becomes the social clearing-house, where experiences and ideas are exchanged and subjected to criticism, where misconceptions

are corrected, and new lines of thought set up."

The possibilities of mind development through the processes used by the kindergarten have never been better exemplified than by William James Sidis, the eleven-year-old Harvard student who has just delivered a course of lectures on mathematics before the faculty. H. Addington Bruce, in an article entitled "Bending the Twig," in *The American Magazine* for March, has contributed an explanation of the methods used by the father, Dr. Sidis, to produce these exceptional results:

"To attain this object Dr. Sidis has, in the main, relied on the familiar educational principle of teaching a child through appealing to his interest in an unusual way—namely, by systematic application of the influence of that little understood but tremendously powerful psychological factor, 'suggestion.' In dealing with little children, as many educators have long recognized, the one sure way of implanting in their minds the ideas which one wishes to make dominant is by arousing their curiosity and stimulating their interest. This has led to the method of education through play, as exemplified in the kindergarten. But Dr. Sidis believed that, if properly manipulated, the method of education through play might be extended to subjects not taught in the kindergarten—that, in fact, a child might be led to undertake and continue the study of any subject provided it were made sufficiently interesting to him. To-day, as we have seen, his son excels in mathematics. There was a time, however—while he was at the grammar school—when no subject could possibly have been more distasteful to him, and he seemed totally unable, or at all events unwilling, to apply himself to it. Everything about us, as is now beginning to be pretty generally appreciated, is of suggestive value. From our friends, our books, the pictures on our walls, from everything in our environment, we constantly receive suggestions which influence us to a varying but none the less unmistakable extent. This is particularly true of the plastic period of childhood. Recent psychological investigation has made it certain that everything the child sees or hears, no matter whether he is consciously aware of it or not, leaves a more or less profound impression, is 'subconsciously' remembered by him, and may at times exercise a determining influence upon the whole course of his life.

"While the boy was still a mere infant, he set aside a room for him, a bright, cheery, well-lighted apartment, hung with a few attractive pictures. A little writing-table was placed in one corner of the room, with pad and pencil. Opposite the child's bed a small bookcase was placed. It was filled in part with the ordinary books of childhood—volumes of nursery rhymes, fairy tales, picture-books. But it also held books of serious interest, simple tales of travel, of history, of science, and the like, most of them illustrated. As the child grew older, books of a more advanced character were added to his little library, studies in literature and biography, mathematical and scientific text-books. A large revolving globe, showing the countries of the world in bright colors, was placed near the window. Toys having a scientific basis also found their way to his room, which thus became a sort of educational museum, inspiring him with a love for knowledge.

"'And,' says Dr. Sidis, emphatically, 'it is because he has been inspired with such an interest, such a genuine enthusiasm, that he has made the progress which people regard as surprising. Any normal child would make as good a showing if he were given the same training. The trouble is that parents neglect their children—allow them to fritter away their energies, to acquire habits of loose and incorrect thinking, at the very time when they stand most in need of careful education. It is the first years that count for most. Then it is that the child should be taught to observe accurately, to think correctly.

"'I do not mean by this that the child should be deprived of play. My boy plays—plays with his toys, and plays with his books. And that is the key to the whole situation. Get the child so interested in study that study will truly be play. Don't tell me it can't be done. I have done it.'"

That is my idea about our educational methods. Those teachers who object to the kindergarten training are wrong in their notions, either through ignorance of the basic principles or a refusal to be convinced. I have long felt that our old-time methods of recitations and study should give way to the more sensible methods of self-expression through doing, acting, making, growing. You can teach more arithmetic in one week with manual training methods than you can in a month with the text-book plan. You can create more interest and leave more real valuable results with your classes in domestic science than any teacher can do with the best text-book methods in existence.

We can not begin too early to train the child. As the twig is bent so the tree is inclined. Some say it should be at the age of six. Our Catholic friends say, "Give me the child until he is six and you can not change his religious views."

Luther Burbank, in his splendid little

volume on "The Training of the Human Plant," says: "All animal life is sensitive to environment, but of all living things the child is the most sensitive. Surroundings act upon it as the outside world acts upon the plate of the camera. Every possible influence will leave its impress upon the child, and the traits which it inherited will be overcome to a certain extent. The child is like a cut diamond, its many facets receiving sharp, clear impressions not possible to a pebble, with this difference, however, that the change wrought in the child from the influences without becomes constitutional and ingrained. A child absorbs environment. It is the most susceptible thing in the world to influence, and if that force be applied rightly and constantly when in its most receptive condition, the effect will be pronounced, immediate, permanent.

Where should we begin? Just where we begin with the plant—at the beginning. A child in any well-regulated up-to-date kindergarten is surrounded by the best environment that it is possible to give to growing childhood. The brightest, sunniest, most cheerful room is always selected and its walls are decorated with pictures that interest, inspire, uplift, and influence. The child is nurtured and trained under the influence of music, song, and story. The gallantry of the sir knights of the past and the beauties of nature in all its manifold working are revealed to the child mind in the stories that can not be forgotten. Little by little, under the most natural conditions it is possible to create, the very soul of the child is made to bud and bloom as naturally as the rain and sunshine cause the blossoming of the pure and lovely rose.

Primary teachers, will a child trained and taught under such conditions and influences be unfitted for entrance into your grades as is so frequently claimed? My experience with the kindergarten-trained pupils has led me to believe more and more in the aims of our co-workers. Having worked out "his own childish salvation" with his blocks, sticks and clay with just enough direction to prevent waste of time and energy he comes to us with the freedom and naturalness of a *natural* child, ready to *do* things with his hands. Having been encouraged to tell stories, sing songs, and describe pictures he comes to us ready to express himself through his voice, unconsciously. Having danced and romped and acted out his little dramas with his playmates in the presence of older ones who encouraged him by an outward show of appreciation, he comes to us ready to express the whole intent of his pulsing, palpitating personality,—ready, in fact, to show you and me what an angel there is in the making—what an embryo there is in the rooting,—what a twig there is in the bending.

Criticisms of the kindergarten-trained child have come mostly from the primary teacher not yet ready for the newer things and for this *she* should not be condemned. The light has spread slowly, indeed. When Col. Parker came back from his educational tour of Europe and advocated the New or Natural Method of Education at Quincy staid old Boston with her great educators went placidly on her way little affected by the supposed "fad" which would soon pass away.

In this great state of ours too few of the teachers have had any professional training. Those of us who have been fortunate enough to come in contact with the enthusiasm of Col. Parker and the conservative leadership of Susan E. Blow should accept the inevitable in educational progress and pass it on. Let us be sensible enough to see that much of the kindergarten method should be carried into the first year; that we should not expect little children from six to seven to remain cooped up in straight stiff seats learning to draw letters in a cramped, pinched position to the detriment of their eyes, nerves and mental growth instead of working and playing with big things, viewing things from the mountain tops, thinking big thoughts, coming into contact with the big world around them for which Mrs. Ella Calista Wilson so earnestly pleads in her admirable book "Pedagogues and Parents." Let us catch some of the spirit manifested by Ada Van Stone Harris who was largely instrumental in convincing the good people of Rochester, New York, that their children were not getting a square deal in matters educational, and who was largely instrumental in putting into operation one of the sanest and most productive systems of education in our awakening land, a system which gives the children a chance in the kindergarten to express their lives as they are and then gives them a further chance in the grades to express themselves in harmony with common sense and business necessity by virtue of the requirement of a course of study made to suit the children.

Hasten the day when the kindergarten methods shall be carried up through the grades to the high school class. If educators generally had sufficient nerve to break the fetters that bind them and us to the prejudices of the past we could have our children do in six years what they now do in nine. Not long since Chancellor McCormick, of the University of Pittsburgh, voiced the same sentiment before the Peda-

gogical Section of the Academy of Science and Art.

The kindergarten spirit is here to stay. It is the spirit not only of a Froebel but it is the spirit of a Parker, a Blow, and a Hall, a Dewey and a Harris. The educational leaders of to-day stand for it as an embodiment of all that is best in applied psychology.

In conclusion: My experience with the kindergarten during the past eleven years has revealed to me these facts:

1. That the children who enter the public schools from the kindergarten are far superior in their ability to express themselves. Their free, open, confiding responses are a source of much gratification to the primary teacher.

2. That the power to do things, to make, to execute, to devise, to infer is very marked.

3. That their general fund of information—the kind that is related—is very helpful to them in their grade work.

4. That they ordinarily do their work better and make better time in the grades.

5. That the mothers' meetings held monthly are most helpful to the public schools in bringing about a better understanding of the work of the schools.

6. That the systematic visitations of parents by the kindergarten teachers create a new interest in the child's welfare which continues on into the public school.

7. That the required academic and professional training most eminently qualify the kindergarten teacher to perform services of a superior nature. The greatest problem in public school work is to have teachers continue to grow. The kindergarten teacher attends professional classes weekly and thereby becomes richer and richer in her possibilities for helpfulness. Always fresh from her constant contact with the newest and best in the study of childhood she is always prepared to render the most efficient services to the little ones entrusted to her daily care.

"The kindergarten is the free republic of childhood." In it the "new woman" shall live and breathe and have her being. The new woman is represented by the charming little girl of four with rosy cheeks and flaxen hair and a mind as pure as the fragrance arising from the lily bower. In it, too, shall be reared the manly boy filled with aspirations of valor and patriotism. From it shall come the children of all races and of every class, cosmopolitan in spirit, individualized in initiative, independent in expressiveness.

The president, Miss Alice N. Parker, at this point introduced a report on the progress of kindergarten work. It here follows.

OUTLINE OF WORK ACCOMPLISHED.

1. We have compiled a card catalogue of the states and their largest cities with information regarding the kindergarten laws of each state, and the number of kindergartens in the cities.

2. Have corresponded with the different educational organizations and made card catalogues of them, with dates of their conventions and probable attendance. We are sending to them communications and circulars on the kindergarten subject for distribution at their respective meetings.

3. Have compiled card catalogue of the states showing dates when their legislatures convene. Early in the year we sent a simple bill providing for the establishment of kindergartens, to the governors and superintendents of public instruction in South Carolina, Mississippi and Virginia, as none of these states had provided for kindergartens in their school laws. Their legislatures adjourned without taking action. This experience would tend to show the necessity of doing considerable preliminary work in states where kindergarten legislation is contemplated. The superintendent in Virginia wrote that he believed the State Board of Education could act on the question, but subsequently the board decided it could not do this, and the bill will therefore be brought up again at the next meeting of their legislature.

4. Have communicated with the State Teachers' Associations of each state asking dates of their conventions, probable attendance, whether circulars would be acceptable, and whether an address on the kindergarten subject would be favorably considered. Have compiled card catalogue with information relative to same.

5. After extended correspondence with us, the National Council of Women, with an affiliated membership of 3,500,000, has decided to establish a kindergarten department and has invited one of our members to be its chairman. This will enable us to utilize a large number of women's clubs if it is thought wise to reach out through this channel.

6. Have communicated with the superintendents of public instruction of each state, from whom we have received cordial responses and copies of the school laws and annual reports for our library.

7. Have compiled a card catalogue containing the names of the directors of kindergarten departments in state normal schools, and the directors and superintendents of public kindergartens.

8. Have corresponded with consuls-general of all foreign nations regarding the kindergarten situation in their countries.

Some have sent the information and others will obtain it for us. Have started a catalogue of same.

9. Have corresponded with some of the leading college presidents inviting them to be honorary vice presidents of this Association. Fourteen of them have replied in the affirmative expressing cordial approval of our aims.

10. Have compiled a card catalogue of 10,000 persons interested in kindergartens to whom appeals for financial assistance may be sent.

11. Have started a permanent exhibit of kindergarten materials and hand work.

12. We have sent more than 30,000 circulars to conventions of educational associations and women's organizations meeting in different parts of the Union.

The National Association for the Promotion of Kindergarten Education has been organized for the purpose of arousing an interest in this important phase of educational work in communities where there are no kindergartens. It very heartily offers its services to all who are interested in providing the very best educational facilities for the little children of our country, and hopes for the cordial coöperation of the educators in every state.

The kindergarten provides a scientific training for very young children and in this fact lies its originality. Its founder said, "The world is sick with thinking. Let us cultivate the right emotions as the true beginning of education."

Because we have so large a foreign population the moral and spiritual training which the kindergarten gives is of especial value.

The establishment of a thorough system of good kindergartens would greatly reduce our criminal population, and through the systematic training of the hand, materially increase the efficiency of the laboring classes.

Few of us realize that there are more than four million children four and five years of age in our country who are wasting two important years of life. As our children average only a trifle more than five years in school (and in some sections less than four years), the importance of giving them two extra years of training in kindergartens cannot be over-estimated.

This Association will endeavor to maintain a high standard and to improve it where poor work is being done. We intend to promote the extension of this important phase of education through the press, and by letters, circulars and lectures and invite everybody to call upon us whenever we may be of service in this matter.

CHILD STUDY.

THE department of Child Study was called to order by President Charles Lose, in the absence of Dr. W. W. Deatrick, in the Chamber of Commerce, immediately after the adjournment of the Kindergarten department. The

RELATION OF PHYSICAL DEFECTS IN SCHOOL CHILDREN TO RETARDATION

was the subject of the first address of the afternoon, which was by Dr. Edwin B. Twitmyer, of the University of Pennsylvania, as follows:

If the original plan had been carried out, this talk would have been illustrated; but under the circumstances the pictures could not be used. Back in the year 1896 a teacher discovered a chronic bad speller in her school. This discovery was not startling, and yet it resulted in a great deal. It was the starting point for the University of Pennsylvania's work. The boy was in the grammar grade. In the other studies he stood high in his classes. The teacher could not understand why the boy could not spell, and finally brought him to the university laboratory. Dr. Whitmer had never studied a school child. On examining the boy an interesting ocular defect was discovered. His eyes did not focus properly, so that when he looked at the letter o he saw two o's one partially superimposed on the other. By vigorous effort this boy could overcome this defect for the instant. He thought that everybody's eyes were like his. He was sent to an oculist, his ocular defect remedied, and he is a good speller now. The outcome of the study of this one case convinced Dr. Whitmer that psychology had something to contribute toward helping to cure poor school work and retardation. The psychological clinic is the outcome.

It is not necessary to inform this audience of the need of such study. A recent investigation as to retardation, particularly in the schools of Camden, Philadelphia, Reading and Wilmington, Del., showed that twenty-five per cent. of the pupils are retarded.

To define retardation: In Pennsylvania the child should complete the work of the first grade at the age of seven, if he enters school at six, and should complete one grade each succeeding year. So when we say that 25 per cent. of the children of these cities are retarded, we mean that they are two or more years below their grade.

One of the first tests of retardation is excessive age, along with excessive size. The grade teacher has another test—does the pupil measure up to the standard for that class? But that is a dangerous test,

as the teacher is prone to pick out one fine pupil and judge the rest by him. Clarence may fulfil the artificial requirements of that room and yet may not be a normal boy. If we follow up the pupils after they leave school we will find that the model boy in school never makes good in life as does the normal boy. The best criterion of a normal condition is the ability to maintain oneself in one's environment. If teachers take all this into account they will be pretty clear as to who the normal boy is.

What conditions cause a departure from a normal condition? Poor attendance of course; but a group of physical defects is also responsible for a great deal. Two influences can contribute to the solution of this problem. One plan would be to have the teachers trained to such proficiency that they could recognize the symptoms of these physical defects. The other plan is vigorous medical inspection. This would be well worth while because a large part of the twenty-five per cent. of retardation is due to physical defects.

Malnutrition is an important cause of retardation. I use the term broadly, so as to include both insufficient and improper food. A boy with plenty of food may starve to death if it is not of the proper kind. Enlarged tonsils and adenoids prevent proper breathing through the nose. Mouth breathing prevents proper oxygenation of the blood. Naturally, the attempt to provide more air pushes up the roof of the mouth, causing mal-occlusion of the teeth, and inefficient chewing, with consequent indigestion. Any teacher can discover the presence of adenoids by simply inserting the finger into the child's throat.

Take the mouth-breathing child, with watery eyes, constant colds, apparently stupid, and by proper treatment the child can be made over in three months. Of course removing adenoids will not bring back wasted years of school life, but it will at least make it possible for subsequent teachers to help such retarded children to regain their grade. In Williamsport special teachers are provided for such pupils. A year's experience convinced the Board of Education that they were saving money by the process. A boy who remains in one grade three years costs just three times as much as a normal boy.

Bad teeth are a frequent cause of nervous irritability. A boy who seemed to be incorrigible having been sent to Glen Mills, and houses of probation, was brought to a clinic where it was found that his first teeth had not been completely removed, and had caused his second set to be pushed far out of their places. The first teeth were removed and his mouth treated, with the result that in three weeks the boy became thoroughly tractable.

Often deafness is a cause of retardation. Deaf children are often so seated as to be unable to hear the teacher's voice. A great deal of retardation can be accounted for on the score of remediable defects. Do not bank much on the ordinary family physician, who says, "He'll outgrow it." We need thorough expert medical inspection.

"The Relation of Poor Attendance to Retardation" was discussed by Prof. Norman C. Cameron, of the West Chester Normal School, in the following paper:

RELATION OF RETARDATION TO ATTENDANCE.

Almost every great movement in state of church is preceded by a period of theorizing and discussion before a practical plan has been wrought out. Men are loath to attempt the new and untried until they have seen them worked out in practice, or there is a common agreement that the theory will work out in practice. Just so the problem of retardation confronting the educational public is in that incipient, theoretic stage of its life. On every hand we hear the assertion, "Don't criticize so much. Tell us how to overcome the defects for which you say the school system is responsible." And again there is a demand that this responsibility be placed upon the proper persons. In answer to the first I would say that healthy, intelligent criticism does more than any other agency to bring about progress in any field of activity. I am aware when I say this that much of the earlier discussion on the subjects of Retardation and Elimination aroused unjustified and harmful criticism from the daily papers, because the conditions emphasized in these articles were stated as bald facts without any explanation of their causes, nor the method by which the investigator arrived at his conclusions. Ever since Prof. Thorndike's article on "The Elimination of Pupils from School" came out there has been an effort made to show that his plan of determining retardation and elimination is faulty, and that some other scheme must be devised to deal with the cold, dust-covered statistics of the National Bureau of Education at Washington. For my part I am willing to let bygones be bygones and take up the problem as we face it to-day, with the boys and girls that are with us early and late. If our youth have not received the quantity of education due them in the past and if there has been a great waste of the public funds in consequence, I am sorry; but no amount of handling of school statistics will suffice for more than to call our attention to the fact that many pupils are being yearly retarded and elimi-

nated from school. What we do need is some standard of efficiency by which we can measure the results of each year's work, and compare it with the preceding years, and with that of other school systems. Of this I shall speak later.

This paper will deal with the problem of retardation and attendance only as it is found to exist in the elementary schools. A normal pupil is here regarded as one who has completed a grade for each year in school; a retarded pupil as one who has failed to do so; and an accelerated pupil as one who has skipped one grade or more without being retarded any. In the early investigations made by Drs. Bryan and Cornman and others a theoretic age for grade standard was set up. No doubt this has served a very useful purpose in dealing with such statistics as have been collected through the Bureau of Education, but it seems to me that such a method lacks definiteness, the very thing for which the school aims. In an article in the June number of the *Educational Review*, Assistant Supt. Bachman, of Cleveland, clearly points out that an artificial way of determining the number of beginners in a school system in any year is likely to be unreliable. For example, he shows that the methods of both Prof. Thorndike and Mr. Ayres give results far from the actual facts when applied to determine the number of beginners in the Cleveland schools, the one being too high and the other too low. We no longer have use for these artificial methods for determining the number of beginners—we can count them.

While a uniform method of ascertaining the number of those entering school for the first time, and the number who enter and leave school, can be agreed upon, it is not so easy to settle upon a definite basis for measuring the extent of retardation. Some schools have taken as their base the total enrollment, the average enrollment, or the enrollment for stated times of the year—indicating one thing at least that there is lack of uniformity in measuring the efficiency of school systems.

For much of my statistics on the relation between retardation and attendance I am indebted to Dr. A. M. Snyder, fellow in Psychology in the University of Pennsylvania for many years, whose painstaking investigation has furnished a contribution on the subject of Retardation and Elimination of pupils from schools of great value to superintendents, also to Supt. E. B. Zeigler, of the Conshocken schools, who has collected material on the subject dealing with a phase of the problem as it exists in township and borough schools; and to studies made from time to time, during the past three or four years, by Drs. Thorndike, Boyer, Cornman, Ayres and others. Irregular attendance or prolonged absence is undoubtedly an important, if not the most important, cause of retardation. No matter whether the absence be long or short, if the pupil returns to school, this absence is due either to preventable or unpreventable causes, and as such must be a matter of concern.

Out of a total number of 6,745 pupils in the elementary grades of Reading during 1907-8, 38 per cent. failed in the first grade, 31 in the second, 23 in the third, 28 in the fourth, 30 in the fifth, 18 in the sixth and 11 in the seventh, or about 26 per cent. in all the grades. Taking the attendance record of these same pupils for all the grades I find that 90.6 per cent. of the promoted and 71.3 per cent. of the non-promoted attended three-fourths of the time or more, and that 9.4 per cent. of the promoted and 28.7 per cent. of the non-promoted attended less than three-fourths of the time. That is, there were 19.3 per cent. more of the promoted than of the non-promoted that attended three-fourths of the time or more, and that 19.3 per cent. more of the non-promoted than of the promoted attended less than three-fourths of the time.

Again, since the Pennsylvania law requires that a child between the ages of eight and fourteen should attend at least 70 per cent. of the school term, we may assume that attendance for this length of time will insure promotion to the average child. From the same study we observe what per cent. of the promoted and non-promoted children attend as long a time as this, and what per cent. of the same attend for a less time. For the first seven grades 95 per cent. of the promoted and 81 per cent. of the non-promoted attended 70 per cent. of the time or more, while 5 per cent. of the promoted and 19 per cent. of the non-promoted attended less than 70 per cent. of the time. In other words almost four times as many of the non-promoted pupils as of the promoted ones attended less than 70 per cent. of the time required by law. On the basis of 1000 days the same investigation shows that the non-promoted lost in the first grade 122 days, in the second 55 days, in the third 85 days; in the fourth 46 days; in the fifth 103 days, in the sixth 59 days, and in the seventh 75 days, or an average of 78 days more than the promoted pupils, or just twice the time lost by the latter.

The relation of attendance to retardation indicated by the results above may be compared to those obtained under somewhat different conditions in an investigation I

undertook in the white schools of Elkton, Maryland, during the past two years. The school history of 139 females and 157 males was studied from the time of entering school until the date of leaving it. While the pupils did not all commence school in the same calendar year, I considered them as beginners at the same time and studied their progress through the grades. 81 per cent. of the promoted and 57 per cent. of the non-promoted attended 70 per cent. of the time or more, and 19 per cent. of the promoted and 43 per cent. of the non-promoted attended less than 70 per cent. of the time. Whereas 19 pupils out of every hundred at Elkton are promoted with less than 70 per cent. of attendance, only 5 out of every 100 are so promoted in Reading. And again, for every 43 out of 100 who fail of promotion with an attendance less than 70 per cent. in the schools of the former place only 19 fail in the latter city who have such an attendance.

According to Dr. Snyder's deductions about 20 per cent. of the retardation is due to irregular attendance and prolonged absence. This latter no doubt is the most potent cause, and the one which is the most difficult to eradicate. I am inclined to believe, however, that this is an under rather than an over estimation of the importance of this as a factor in retardation.

Among the many causes producing irregular attendance and prolonged absence are the following: Changing schools, sickness of self or others, dislike for school on account of poor teaching, and over-emphasis of abstract thinking, weak discipline at home, and the unfitness of courses of study to children's needs. These school causes are operative with varying degrees of influence at different ages of the child's life. Where the discipline at home is weak, the other causes are sure to be more effective than they otherwise would be. Early in the child's school life the absences may be confined to an occasional act of truancy, which may easily grow into a habit. Let the pressure be hard on the boy in school from whatever cause, and that at home light, and we have one more subject for frequent retardation and early elimination from school. The banefulness of these periods of absence is not that the boy has the work of the grade to repeat, for that undoubtedly would be of benefit to him, but he is thrown with a set of children younger than himself, whose thoughts, feelings, and acts are different from his own. There is a lack of sympathy between himself and those younger than he, because of the differences in natural tendencies. He requires associates of a different stage of development, and being cut off from them by certain school restrictions, he seeks other companions outside of the school more in conformity with his age and desires.

Supt. Ziegler has shown in his investigation of borough and township schools that changing of schools is an important cause of the backwardness of children. Summing up for all the grades the results indicate that 21.4 per cent. of the normal girls and 41.7 of the retarded ones are from other schools. In the case of the boys 17 per cent. of the normal and half of the retarded pupils have attended more than one school. While much of this may be attributed to the failure of one school system to recognize the standing of another, still not a little is due to the failure of the pupil to report promptly to the new school where he must now attend.

Sickness of self when of such a nature that it causes frequent absences of short periods or infrequent absences of long periods is a not unimportant cause of retardation. What part of these absences can be prevented by the school authorities? And where does the responsibility for their prevention rest? I believe that much of it can be overcome. To be sure there are many cases of sickness which no amount of precaution on the part of superintendent or teacher could prevent, but as you have already heard this afternoon there is a large proportion that is preventable if remedial measures are resorted to at the time in life when many minor defects may be removed. Closer and better supervision is the keynote to the solution of the problem. And by this I mean untrammeled supervision. Then and then only can the superintendents be held responsible for much of the retardation and consequent elimination of pupils in the elementary schools. In addition to these I may name the following as factors in the prevention of irregular attendance and consequent retardation: Better prepared teachers, more extensive and less intensive study between the ages of 12 and 15 years, a more rigid enforcement of the compulsory attendance law, medical inspection in the schools (every grade teacher being prepared to detect most of the minor defects and diseases to which children are heir), greater flexibility in grading, provision for visiting nurse, special classes, special courses of study, a standard minimum requirement of essential content for all school systems, grading by physiological age between the ages of ten and seventeen, parents' associations, and a uniform record card for the transference of pupils from one system of school to another. Practically all of these

suggested reforms have already been tried in one school or another in our country or Europe and with happy results There is not time to discuss each of these separately, but a few words on two or three of the more important ones will not be amiss at this time. Indeed, the remedy is the most important feature of the doctor's prescription. No matter how he may diagnose the case, whether as measles or scarlet fever, so long as he effects a speedy and permanent cure, he has performed his duties well and is a worthy and helpful member of society.

As I have said before in this paper the forces instrumental in causing absences from school produce less serious results at one time of the child's school life than at another. Just when the boy is arriving at the pubescent period of life the greatest care must be taken that the work be interesting, that it appeal to his emotional life at this time. Right here the boy needs the sympathetic, earnest, vivacious teacher, one who enters into the child's work, creates ideals for him that conform with his nature. What a difference skilful teaching makes at this time! Let me cite an experience of my own. In a school of which I had charge during one year a competent, enthusiastic teacher taught a class of about thirty-five or forty fifth-grade boys and girls. Their attendance was very good, and at the end of the year about 95 per cent. of the number was promoted. The following year another less competent teacher, one who lacked interest in her work and snap in its presentation, taught a like number of boys and girls of the same age, a group which differed very little from that of the preceding year. I was constantly called upon to discipline truants, absences were of frequent occurrence, and at the end of the year it was only with difficulty that I could promote 70 per cent. of their number. Again, to show the effect of good teaching, I may relate one of the results of the questionaire put to the students of the middle year class of the normal school. Among the questions asked were these: What school subjects did you dislike most before coming to the normal school? What subjects did you like most? Towards which subjects has your opinion changed? In answer to these questions 65 per cent. had changed their opinions favorably towards mathematics, 61 per cent. towards history, and 57 per cent. towards English. None of these was the subject which I myself taught, so that the personal factor of my presence had nothing to do in influencing their answers. Of course, these students were much older than those of the elementary school, but it shows, to some extent at least, the influence of efficient teaching. I have collated the results of these three subjects because those in charge of this work are strong, enthusiastic teachers. Some schools have tried grading according to physiological age between the chronological ages of ten and seventeen, basing it on the periods of pre-pubescence, pubescence, and post-pubescence. In an article in the *Psychological Clinic* of May, of the current year, Dr. Wilfred L. Foster points out the relation of weight, height and mental growth to these three periods. In a study of three groups one arranged according to physiological age. a second and third not so arranged, he finds that the per cent. of those leaving school of the first class was 20, of the second 31, and of the third 27. In his summary he states that the plan decreased the number eliminates materially and increased the efficiency of the students. He further suggests that in schools where physical examinations are impossible, a classification according to height would probably produce almost the same results, since there is a very close relation between height and pubescence. As an alternate remedy at this age of storm and stress I would suggest a less extensive and more intensive course of study. It is really the hard irksome work that a boy is subjected to that puts him out of sorts with school environment. More interesting subject matter, as well as more interesting and more skilful teaching is necessary at this period of school life. Right here I might suggest that there should be greater uniformity in our courses of study. At least the authorities who are responsible for the child's mental diet should agree upon a standard minimum of essential content for every curriculum so that when a boy moves from one school district to another there may be some definite criteria by which to judge his preparedness for the grade he is to enter, and at the same time do justice to the boy and to the school whence he comes. Indeed, it seems to me there is no good reason for putting a boy through a course of examinations when he moves from one school to another. Oftentimes the child is quizzed while under a great nervous strain in new surroundings and in the presence of strangers, and upon his failure to meet the requirement being placed in a grade of children much younger than himself, he becomes dissatisfied and goes the way of the thousands of others.

In answer to this defect in our school system I would propose a national record system. The National Educational Association, and many state associations have

discussed this subject for years. Yet we have nothing but special card systems for a number of school constituencies scattered here and there over the vast majority of country. Along with school people I am convinced that much waste could be avoided by the introduction of such a card system as would show the school history of every boy and girl, and a partial duplicate of which would admit him to any other school on his record contained thereon. Only a few days ago I was talking to a young lady of average intelligence who told me that in one of our eastern cities she had been demoted to the first grade from the third upon changing schools because she had no record card and she had failed miserably in her spelling when tested by the principal of the school. She afterwards made up one grade but was so far behind the girls of her age that she felt it would take too long a time to go through the high school and attend another school; hence she decided to come to the normal school where she believed she could make more rapid progress. What the most of such girls do is to drop out of school entirely when they find themselves out of harmony with their surroundings. This is one of the many illustrations that could be given to show the need of some definite plan for the transference of pupils from one school to another. Two of the charts before you embody roughly my ideas as to what such cards should contain.

I have perhaps emphasized some of the factors for the betterment of conditions in our schools unduly and others too little. But it has been my purpose to call your attention to some of those which seem to me most vital. I again say that effective, untrammeled supervision will open the way for the removal of many of the causes which are now preventing many boys and girls from getting the benefit of the education which each needs in these days of commercial progress, and I hope that the legislature of this state at its coming session will embody in its new school code provision whereby the real heads of our school systems may effectively accomplish their aims.

Supt. Hamilton suggested that we should also have a pedagogical clinic to measure out a year's work for each grade. The best thing Pennsylvania could do would be to have a committee which should gather together the facts so that ten years from now we may be able to discuss the matter intelligently.

Too much promotion is based on arithmetical ability after the second or third year in school. We have been trying to teach five years' arithmetic in three or four years. All the way through the course is too crowded.

There being no election of officers, it is assumed that Dr. Deatrick will continue at the head of this department.

NATURE STUDY.

THE delightful boatride on Lake Erie which had been arranged by Supt. Missimer for the members of the Association from two to five o'clock on Thursday was shortened somewhat to accommodate the department programmes of the afternoon. The department of Nature Study met on the first floor of the Chamber of Commerce at 4.30 p. m.

Prof. L. J. Ulmer, of the science department of the Williamsport high school, was called to the chair. He introduced Prof. Alvin Davison, of the department of biology of Lafayette College, Easton, in a paper on "Effective Nature Study in the Grades," which tells how children must and will become interested in explanations that teachers can give them of things which they observe about them. He thinks that directing their study to problems of milk and food supplies, to improvements that may be made in the household, to sources of information like the free publications from the United States department of agriculture, and other beneficial knowledge of a practical sort, will make the work of "Nature Study" very profitable to the schools and to the community. Children should be made, if possible, to see clearly. His paper is here given:

EFFECTIVE NATURE STUDY IN THE GRADES.

Those of us who have been interested in nature study for the past twenty years and long ago guaranteed that its introduction into any school would be a panacea for all ills are obliged to-day to admit that our expectations have not been realized. The difficulties in the way were greater than we thought. We believed that because

> "Nature, the old nurse, took the child upon her knee,
> Saying, Here is a story-book thy Father hath written for thee,"

she would do the same for all others. Only a few are born with an eye able to see the good qualities in the old nurse, Dame Nature. To others her grand character must be pointed out by the trained teacher.

We have come to recognize the important fact that the content of nature study suited to the needs of one school are not at all adapted to another. The needs of communities differ just as much as the needs of individuals. The nature study of

city schools should be quite different from that of rural regions because the aims of city pupils will be far different from those of the pupils living on the farms. I heard of a lady the other day who, when purchasing a dress which did not quite meet around the waist, was told by the clerk that she could easily make a fit by lacing an undergarment a little tighter. The folly of making the body fit the clothing instead of the clothing fit the body is no greater than trying to make all boys and girls fit the same course of study instead of adapting the course of study to the needs of the boys and girls.

The nature study of a decade or two ago meant to many teachers the gathering of old birds' nests, butterflies and ferns. The fact that the pupils had seen and handled these gifts of nature testified to the misguided teacher that their meaning in the world of life had been absorbed in some occult way. Some teachers have considered the telling of fairy tales about animal life as nature study. One teacher steeped in the lore of the past used the story of Jason and the golden fleece, while another related the marvelous accomplishments of the wooden horse of Troy reasoning that a horse is an animal—and the study of animals is nature study. Such tales as these and that of the mermaid, mingled with some baby talk about bees and butterflies, has done much to arouse prejudice in some quarters against earnest nature study.

We sometimes hear persons who are out of touch with school life say that teachers are altogether too theoretical, and lack much of the practical knowledge of affairs. There may be some truth in this, but my acquaintance with both the laity and the teachers compels me to conclude that the laity are grossly ignorant in regard to the practical affairs of life relating to nature study. One of the most talked of health topics during the last five years is milk. The good women making up the civic clubs of our cities have actually in many cases, neglected the study of Shakespeare and Browning and the Parisian styles long enough to have their hearts touched by the thousands of babes crying for milk who were given poison. Less than a month ago a party of well-meaning women went out from New York City to see the cows and the condition of the stables where the milk supply of the City originates. According to report one lady wanted to know which cows gave cream, and another asked which ones gave the buttermilk. These women, educated in a fashionable boarding school, would have been ashamed not to know who Julius Cæsar was or what Napoleon did, but why milk goes sour or poisons 50,000 innocent babes yearly were questions upon which they could express total ignorance without a blush of shame.

More than once I have had a boy, after spending ten years in public school and two years in college, declare that he has seen a horsehair change into a wriggling snake, and still others have asked "Where do flies come from?" It is the exception and not the rule for the average citizen to know anything accurate about the things in nature related to his highest welfare. In 1885, the wise lawmakers of this State passed the scalp act, and more than 100,000 of the faithful servants of man, the hawks and owls, met a shameful death; and we the people paid out in bounties thousands of dollars for their slaughter. Careful investigators tell us that our ignorance of the habits of these birds cost us $3,000,000 or $4,000,000 before the law was repealed. More than one boy in my classes in college has expressed his astonishment upon finding out that all hawks and owls do not deserve death. Bird study is worthy of a place in every school, not only to teach the child the tremendous importance of conserving these natural resources but to give to him an interest that will multiply the joys of every walk and ride a hundredfold. Not to know the meaning of a note from the thicket, or of the nest in the briars, at times makes out-of-door life as meaningless as a page of Hebrew.

Sometime ago I was a member of a scientific party conducted by Supt. Hornaday through the New York Zoological Park. In order to demonstrate instinct in an ourang-outan, Mr. Hornaday took a young one from the cage and allowed it to climb a tree where it at once began breaking off the boughs and building a secure nest in the same way as its parents did in the wild state, though it had never seen such an act performed. Later at the base of the tree was fastened a label reading, "Nest of an Ourang-outan." One day a teacher accompanied by a class whom she was instructing in nature study stopped while the pupils read the sign and observed the nest. One of the children said "What is an ourang-outan?" "Why, that's a kind of bird," replied the teacher. Another pupil piped out, "I thought it was a kind of monkey." "No," said the teacher, "it is a bird that lives in South America."

If we are to have effective nature study in our schools the teachers must know something definite about the subjects considered; and the subjects must be such as will appeal to the interests of the pupils, and when possible to the parents also. At

the meeting of the American Nature Study Society in Baltimore, I advocated the idea that a very easy way to start nature study in a school is to relate it to physiology and hygiene. Now that we have official warrant for the study of agriculture in the Pennsylvania schools it seems to me that our nature study might very wisely be closely associated with both health problems and agriculture. Let me illustrate by pointing out the line of procedure for one or two topics. I will use the subject of milk because its study is just as important in the city as in the country, and its discussion involves problems in both health and agriculture. The first equipment the teacher needs is a collection of the several bulletins on milk published by the United States Department of Agriculture. These may be had free of charge on request.

To get real work out of the pupils and arouse fruitful interest the subject should be presented in the form of problems. In the city schools the first problem would concern the price paid for milk. In our city and in most other cities of this state milk is sold at six, seven, eight, nine and ten cents per quart. Why does the price vary so much? and is the milk in each case worth the price asked for it? This problem can't be solved by memorizing a sentence or two or working exactly according to a rule on some particular page. The teacher can't say, "We will take the next page for to-morrow's lesson." The pupils are no longer studying books, but a problem that concerns every living soul in the community. It is a question in political economy, health and agriculture. In our city the nine-cent milk is one and one-third richer in cream than the ten-cent milk and one and one-fourth times cleaner. Some of the seven-cent milk is richer and cleaner than the eight-cent milk, while a part of the six-cent milk is as rich in germs as sewage. The conditions prevailing in Easton will be found in nearly every community, and a knowledge of the true state of this universal food is of vital importance. A few cents will purchase some test tubes or bottles of uniform size. The milk left standing in these in an ice box or cold water over night will show approximately the amount of cream. Each child can bring the sample to school for comparison with the others. To determine the cleanness it is only necessary to note the order in which the various samples of milk sour when kept in the same place in the school room. In the ordinary home refrigerator clean milk will remain sweet in the hottest July weather from five to seven days. An examination of the settlings in the bottom of the bottle or pail of milk left standing several hours gives some idea of the cleanness of the product. The straw, bits of manure, and other objects will make a lasting impression on the young mind. A boy once brought to me a horse-hair snake found swimming in the milk, and others have noted gravel, stones and splinters. Some of the pupils will find opportunity to learn from the milkman how dirt gets into the milk and in many cases the boys and girls will be glad to visit the dairies near town and write a paper describing what they have seen and learned, with a vividness that will hold the interest of their fellow pupils like a moving picture-show. The effects of dirty milk on health, shown in the government pamphlets to be given to the pupils, will enable them to make an approximate calculation of the number of deaths in Pennsylvania due to ignorance and carelessness concerning this universal food. The 500 epidemics of scarlet fever, typhoid and diphtheria traced to milk, and the reading of the bulletin on the Dangerously Tubercular Cow, will explain why milk from an unknown source is unsafe without Pasteurization. This will lead to an important experiment in domestic science—the method of Pasteurization—something which every housewife in the land ought to know and so simple that any child can use it.

Another interesting phase of nature study connected with the milk is the manufacture of butter and cheese. We declare that it is the duty of the schools to prepare the pupils for efficient living. There are hundreds of farmers' wives in this state making butter that is not fit to eat and must be sold at a low price. The women with no knowledge of the swarming millions of unseen helpers, churn a spoiled cream into a white, slimy, slippery greasy mass with a hybrid flavor of assafœtida and moldy cheese because they do not know how easy it is to manufacture an article far superior to the product put out by the creameries obliged to use for the most part a second-grade milk.

Your first thought is that making butter at school is an impossibility. As a matter of fact it is easy. I know a school that did actually teach the children the art of butter-making. The churns used were Mason's fruit jars. A half-pint of cream soured at different temperatures and under different conditions was brought to school by each of several pupils and during the noon hour was churned to butter by shaking it in a Mason jar. This was washed in cold water worked with a flattened stick and salted. The process was a revelation to those who had never seen butter manufactured; but what made the greatest im-

pression was the fact that one pupil's butter was bitter, another's had a moldy taste, and still another's had an unpleasant odor. Generally under such conditions only two or three out of a dozen will produce an article with a pleasant aroma and delicious taste. Now the question is, Why did ten fail and two succeed in making a good quality of butter. Here the government bulletins on butter-making are brought into use and these boys and girls destined to be the future nurses of the soil are shown the value of government publications to the farmer.

Millions of dollars are lost yearly by the fruit-growers and tillers of the soil because they have never been taught by the schools to use the knowledge which the government freely offers them. About four miles below Easton is a beautiful farm on which three years ago there was a fine apple orchard. I visited the place and casually remarked to the owner "Your trees are attacked by scale." "Yes," said he, "there are a few on, but there was a feller here that told me they would soon die off before they hurt the trees much." I explained to him that unless a remedy was applied the trees would surely be killed, as the whole problem had been worked out by the Agricultural Departmen. He had no faith in the government publications. This spring every tree was dead or beyond saving and the owner discouraged with the loss of a thousand-dollar orchard in addition to other troubles, committed suicide. Not far from this farm another man was using well-bound agricultural reports to form a walk across a muddy road. This is the result of failing to teach nature study in the past. We have been neglecting the most important thing in education—showing the boys and girls where to find the information which they most need.

To return to our butter-making: Let me state briefly that after those pupils learned about the cleanness, temperature and time required to ripen cream they could make butter that tasted like a combination of golden sunshine and sweet clover, and some of them taught their parents the art. Now doubtless the right method of butter-making will spread from that community to the adjacent ones and help the farmers' wives change a tiresome task into a pleasant art.

Your objection to this kind of nature study is that it takes too much time. Yes it does take time; and any kind of nature study worth having, or anything else worth doing, will take time. To the teachers who think they haven't time for nature study I would like to say that much of the geography, part of the history, some of the grammar and more or less of the arithmetic can be omitted from the schedule without a particle of injury to the career of the child. Yes, the hours spent in guessing for the answers to the problems in arithmetic and in injuring the eyes scanning the dimly-printed maps to locate Popocatapetl or an insignificant island in the Pacific will yield rich rewards if devoted to putting the boys and girls in vital touch with old Mother Earth and her secrets.

While in many cases the nature work in the cities must differ from that in the rural regions there are many topics which are equally valuable for both. The school garden is invaluable for the city and in many cases may render excellent service in the country. It gives a wealth of material for demonstration and affords the solution to many problems which cannot be well worked out in the gardens about the homes.

A topic of universal interest to housekeepers everywhere is the insect pests, such as ants, flies, mosquitoes, bedbugs, roaches waterbugs and moths. Every one of these trespassers has a most interesting life history, and enough specimens can be found for study at almost any season of the year. One of the most important things a future home-maker can learn is how to avoid annoyance from these creatures. A little while ago one of my neighbors spent hours tearing off paper, brushing out cracks and burning up bedroom furniture in a vein endeavor to get rid of the bedbugs which had taken possession of his home. A short time ago I heard a lady remark that she had had a siege with bedbugs once, and if she ever found them in her house again she would die, because the fight to overcome them would be more than she could endure. Ten years ago it was a serious matter to have one's house overrun with moths or bedbugs but to-day we have an effective remedy in hydrocyanic acid gas. A few cents and a half-hour's work eradicates the pests completely. The school which doesn't make this known as a part of its nature study fails in a most important duty. When one knows the natural history of moths it is an easy matter to make furs and woolens safe from their attacks without resorting to the trouble and expense of cold storage. Flies and mosquitoes are favorite objects for nature study because their whole life-history can be watched in the school room. Yet I find boys in college quite ignorant of the habits of these creatures. In fact I have had students who did not know how many legs a fly has, and scarcely any could distinguish a crane-fly from a mosquito. Where there is no nature study the power of observation is wofully wanting. To

teach pupils to see clearly and to describe accurately must be one of the aims if the nature study is to be most effective. To give a pupil ears to hear and eyes to see nature is to open up to him a new world of which most persons are quite ignorant. Even Ruskin, living largely in an ideal world, recognized the value of seeing, as may be noted in this fine paragraph: "The more I think of it, I find this conclusion more impressed upon me, that the greatest thing a human soul ever does in this world is to see something. . . . Hundreds of people can talk for one who can think, but thousands can think for one who can see. To see clearly is poetry, prophecy and religion—all in one."

Dr. Edward T. Bigelow, the international president of the Agassiz Club and editor of the nature and science department of *St. Nicholas Magazine,* followed in a good-natured but serious denunciation of the general methods of nature study. Elementary science stands for something quite distinct and apart from nature study. Nature cannot be harnessed to the dry, hard lines of text-books. "One fact discovered by the pupils working with the teacher is worth a thousand that are pumped into them. A little girl nine years old was the first to discover that the limbs of trees are constantly moving; another little girl discovered that caterpillars are partial to certain colors."

DISCONTINUE TEACHING "NATURE STUDY."

The learned gentleman who has preceded me spoke enthusiastically in the interest of promoting nature study teaching in the schools, but in his eager desire to have nature study well taught he has unconsciously spoken more than I think he intended. He tells you that it is some twenty years since effort was first made to teach nature study in the schools and he frankly admits that these efforts have not been successful except in a very few isolated cases and even these only a partial success. He goes on to urge you and the few teachers present to help remedy all of these failures of the past two decades. He means all right; he feels the importance of the subject and does not give up evidently a particle of hope that it may yet be done rightly. Let us turn aside for a moment from what he has said and search in your own experiences for schools wherein nature study is taught as it should be. You and I know of a few exceptional cases where the work has been a perfect success, but we also know that the greater the success of teaching nature study in these schools has been the more the teacher has expected the pupils to do original work for themselves. Let us profit by this key to the whole situation, and let us frankly admit that most teachers have made a failure whenever they have depended upon their colossal knowledge and their ability to impart it to the pupil. So the moral of the whole thing is, sit down and give the pupils a show. The teachers' nature study has doubtless been a success in some places and a failure in many for twenty years.

But nature study by the boys and girls *always has been and always will be a success.* The child is a born naturalist; he has just the right exploring instinct and the inquisitive eyes to make him the ideal student. Woe be to the teacher who attempts to teach him, for he knows more than she does in most cases; and even if he does not know more he has the greater activity and the keener eyes to find out about things. Therefort, the logical conclusion is that if we are to have more and better nature study in the schools it must be by putting more upon the child and less upon the teacher. Experience has taught that the best method of putting such nature study upon the child is through young people's organizations. The oldest and most successful of these is The Agassiz Association founded by Mr. H. H. Ballard, of Pittsfield, Mass., in 1875. For some thirty-three years this organization has been successful, and under the best management of any form of young folks' interest in nature study that the world has ever known. From his example of thus teaching God's Works started the many Chautauquas for teaching God's Word and literary matters. Under the inspiration and instruction of the first two years of astonishing success of The Agassiz Association, the Chautauqua was organized in 1877, and you know how that has spread and how other bands of young people more or less connected with the churches have been organized.

From the naturalist point of view there were other failures who have profited by the existence of The Agassiz Association Chapters. Notable among these were the Junior Naturalists of New York State. This organization under the management of Mr. John W. Spencer, familiarly known as "Uncle John," has always been a success. The great good that he has done in getting boys and girls to do and see things for themselves is beyond the scope of words to measure or to do justice to. Did any strict school-wise man attempt by any organization of teachers in any line of work ever anywhere nearly equal the wonderful achievements of The Audubon Societies and The Humane Societies? The secret of their success has been, like that of The Agassiz Association—organizing the young people, encouraging them and giving them

aid when it is needed and then letting them do things for themselves. Iu Rhode Island, although it is a little state, scarcely less has been the success of the Nature Guards, an organization in connection with the State College of Agriculture under the management of Prof. Fred W. Card. Here the same principles have applied; when the boys and girls have been encouraged to realize that they knew something themselves, and that some trained teacher does not know it all; and the young folks have been given the impression that they are not overshadowed by a mountain of knowledge, the work has always been a success.

In New Jersey quite recently the same thing has been demonstrated by Mrs. Georgiana Klingle Holmes in the organization known as The La Rue Holmes Nature Lovers' League. She has not so much tried to teach as to organize and set boys and girls to work for themselves, and here again the wisdom of this plan has been demonstrated. If further arguments were needed I might be excused from personally pointing to my own "Nature and Science" of *St. Nicholas* and to the "St. Nicholas League." The work of these young people for the last eleven years has astonished the world, and the whole secret of this success has been simply encouragement to the young folks to do things for themselves. Such an authority as John Burroughs has strongly denounced the school teaching of nature study. He says, "I should not try to teach but should introduce nature and the young people to each other and let an understanding and intimacy spring up between them."

So overwhelming is the logic of the whole situation that we should discontinue this pedagogical, perfunctory, cut-and-dried routine, whack-it-into-their-heads method of many teachers to teach nature study. Sit down and let the child teach you. Be a learner and an enthusiastic one in this wonderful, beautiful world. At the very best we all can encompass but little of it.

I do not say that the AA Chapters are the only organizations in existence that have successfully solved this problem, but I do say that these Chapters and the allied organizations have for thirty-five years demonstrated to older people, who for the last twenty years have been trying to teach nature study, that the thing cannot be taught in the strict sense of the word. Elementary science can be taught thoroughly and systematically, but nature study is elusive, spontaneous, and cannot be put in from the outside but must emanate from the heart.

All present who were interested in this work were cordially invited to address the genial editor, Mr. Edward F. Bigelow, at Arcadia, Sound Beach, Conn., for further particulars of the AA organization of young people. Great good would come of this to many a growing teacher.

The last topic of the afternoon was "Home and School Gardening." The chairman, Prof. L. J. Ulmer, was on the programme for this paper. He told how the city of Williamsport has been making itself a city of flower-gardens. Through the nature-lover's work in the schoolroom flowers are blooming in profusion about thousands of homes in this beautiful city.

HOME AND SCHOOL GARDENING.

It is a well-known fact that recent tendencies are "back to the soil." Everywhere and on every side we hear discussed methods of scientific agriculture, and prophecies of the ultimate outcome of its application. On every hand we hear likewise the lamentable fact that our population is becoming congested in our large cities, that our farms are being vacated or go begging for tenants, and that farm hands are harder to secure every year. Much of this is true, but a better day is coming. The young men of our cities are turning their attention to the Agricultural College, while the business man is seeking a home in the suburbs. There is no doubt in my mind that a part—and no small part—of this tendency is due to the nature study movement. This has naturally turned the thought of the child as well as of the parent to the richer field of nature, the farm and the forest. The nature study movement began in the cities, and has had its greatest effect upon the city child. There has been no less need of it in the country, but the study of nature for mere novelty has not appealed to the country teacher as it has to the city teacher. It is here where the difference lies, and not with the child. However, the time has happily passed when we must urge nature study. The question today is, What kind of nature study appeals most strongly to the child and to life? We have been groping largely in the dark. Our appeals have been made to sentiment rather than to life. It was only when the school garden was developed that we began to realize the truth that life itself can make the strongest appeal, even to the child. I believe in every form of nature study that is a study of nature herself, but wish to confine myself to the one form in which I have had some experience and in which I am especially interested, namely, the Home Garden as a basis of nature study.

Undoubtedly the ideal way, and in our large and congested cities the only way, to bring the child into direct contact with the soil is the school garden, a plot of ground

set apart for this purpose under the direct supervision of one or more instructors, where the children meet in classes, receive instruction and on these small plots of ground make practical application of the lessons learned. This plan, I say, is the ideal one, and, as you all know, is very successfully carried out in many of our large cities. It however needs to be financed to such an extent that many boards of education are not yet willing to undertake the work. What then can be done in these places to make it practical and effective? Let me tell you what we have been doing at Williamsport during the past three years.

As every one knows, Williamsport is "the ideal city for home and for business." Its wide shaded and beautiful streets are lined on each side with homes surrounded by lawns, and having in most cases a garden. The conditions were ideal but much remained to be done to utilize these conditions to their best advantage. The gardens were often uncultivated and the lawns without flowers. These same conditions exist in many cities and towns. Three years ago, after talking the the matter over with Superintendent Lose and with the principals of the various buildings, it was decided to start the home gardening movement. I was in some doubt as to how it would be received by parents and children. A talk was given to the teachers at one of our monthly meetings. They in turn became very enthusiastic, and herein probably lies the secret of all our success. It was decided to furnish seed to the pupils at one cent a packet. The seed was furnished by the Home Gardening Association of Cleveland, Ohio—they furnishing their order envelope free of charge. The envelope is 5½ x 8 inches made of tough Manila paper. One side names and describes the kinds of seeds, both of flowers and vegetables, that may be ordered; the other gives directions for caring for the ground. Of flower seeds there are sixteen different kinds, and ten of vegetables. For persons interested I can hardly do better than to give what is found on the envelope, as follows:

The Home Gardening Association. Seeds for 1910. Price one cent a packet. Mark opposite the variety the number of packets wanted, separate colors cannot be ordered.

Aster, mixed, scarlet, white and rose. Fifteen inches high.

Bachelors' Button or Corn-Flower, mixed, blue, pink and white, two feet high.

China Pinks, mixed, pink, scarlet, white and lilac, six inches high.

Calendula, yellow and orange, one foot high.

Candytuft,—mixed, white, pink and red, one foot high.

Four-O'clock, yellow, white and crimson, two feet high.

Marigold, French, yellow and brown, one foot high.

Morning Glory, a climber, mixed colors, twelve feet high.

Nasturtium, a climber, mixed yellow, orange and red, six feet high.

Petunia, purple and white, one foot high.

Phlox, mixed (annual), scarlet, pink and white, one foot high.

Portulaca, mixed colors, four inches high.

Scabiosa, or pincushion, mixed, red, lilac and pink, one and one-half feet high.

Sweet Peas, mixed colors, five feet high.

Verbena, mixed, white, scarlet, purple, six inches high.

Zinnia, double, scarlet, two feet high.

Beans, bush, one foot high, plant about May 1st.

Beets, nine inches high, plant about April 25th.

Carrots, six inches high, plant May 15th.

Cabbage, plant April 15th, indoors, transplant outside May 20.

Lettuce, nine inches high, plant about April 15th.

Onions, one foot high, plant about April 15th.

Radishes, six inches high, plant about April 15th.

Parsnips, one foot high, plant May 1st.

Spinach, six inches high, plant about April 15th.

Sweet Corn, six feet high, plant about May 15th.

Return this envelope to the teacher, with your money. Do not put money in this envelope. No. of packets . . . Amount . . . cents. Write your name and address, your School, your Grade and the number of your Room.

Your seeds will be delivered to you in this Envelope about April 15th. Prepare your garden early in April. Select the sunniest part of your yard, but avoid a place where the drippings from the roof will fall on the bed. Dig deep—a full foot—and break up the lumps. Soil with well rotted manure dug in will give better results than poor soil. Vegetables require good, rich soil.

Directions for the Care of the Garden.

Do not plant in wet soil: Plant seeds in garden or boxes early in May. Fill boxes with four or five inches of fine, rich soil. Place boxes in sunny place, and sprinkle every day. Cover boxes at night, if very cold. Transplant seedlings to the garden about June 1st, on a damp day. Sow seeds of Nasturtiums, Morning Glories, Sunflowers and Four-o'clocks in the garden, as they do not stand transplanting.

Suggestions for Window Boxes: Make the box six or eight inches deep, twelve to fifteen inches wide, and as long as the window is wide. Fill the boxes with fine, rich soil and fasten firmly to the sunniest window. Place similar boxes on the porch or fence. Plant Morning Glories on the side nearest the house and train up on strings. Plant Climbing Nasturtiums near outside, to hang over the box. Plant Zinnias, Marigolds, Asters, Phlox or Verbenas in middle of box. Plants should stand four or five inches apart. Boxes need water every day.

Making of Flower Beds: Select sunniest part of the yard. Avoid a place where the dripping from the roof will fall on the bed. Best effects are produced by planting all of one variety in one place.

Preparation of the Soil: Dig up the bed as early as possible, a foot deep. Mix with the soil some rich earth, well rotted manure, or leaf mold from the woods. Bake the beds and keep the soil fine and free from lumps.

Watering of the Garden: Sprinkle the beds every day, if necessary, until the plants are one inch high. Do not allow the soil to become dry. Sprinkle thoroughly every few days, when the plants are two or three inches high, instead of

lightly every day. Water in the morning and evening. If the soil is raked often between the plants they will not require as much watering.

Thinning of Plants in the Garden: Avoid having plants too crowded. Thin the plants when they are two or three inches high, on a cloudy day, when the soil is moist. Transplant seedlings pulled up to another bed, or give them to some friend. Take up a little soil with each plant. Use a trowel, an old kitchen fork or small, flat, thin stick.

Picking of Flowers: Do not allow flowers to go to seed. Pick them every day and more will bloom. Allow a few of the best flowers to go to seed for next year's garden. Keep beautiful, fresh flowers in your house and share them with the sick.

The Vegetable Garden: Select a sunny place in the back yard. Dig up the bed and thoroughly enrich the soil. Crisp, tender vegetables must be grown quickly. Keep the ground well stirred and free from weeds. Plant lettuce, onions, spinach and beets as soon as the ground can be worked. Allow space for a succession of planting during the summer.

Things to Remember: Dig deep and make soil fine on the surface. Keep pulling out the weeds all summer. Sprinkle the seeds every day. Water the bed thoroughly every few days during the whole summer. Pick your flowers every day. Keep your garden neat. Flowers require attention all summer.

These envelopes are distributed to the principals of the buildings, who in turn distribute them to the teachers and they to the pupils who wish to order, the teacher at the same time giving an enthusiastic talk on gardening. The pupils catch this enthusiasm and carry it home with the envelope to the parents, where the order is usually made out. Children are good salesmen and have little difficulty in securing an order. The whole matter appeals to the parent. Indeed, it often appears to be a "bargain counter." Nothing is sold for more than one cent a packet, but the Association will not take an order for less than five hundred packets. This being a discount of about 80 per cent., the proposition looks good, and an order is given. Of course many of the more careful will insist that the size of the packet will have the same discount as the price, but a trial order convinces the buyer that there is no discount in the size of the package. One boy ordered seven packets of lettuce seed. The teacher, being somewhat curious, asked him whether he was going into the trucking business. "No," he replied, "but I thought the seeds were cheap so I ordered enough for next year." The order envelope carefully marked, with the money, is returned to the teacher who hands it over to the principal. Then all the orders from one building are sent to the office of the Superintendent, thence to the Home Gardening Association at Cleveland. Here the packets are placed in the order envelopes. The envelopes for one room are put into a sack, and those of one building into a large sack, so that they can be readily distributed in the same manner as collected, thus reducing the work of the teacher to a minimum. We were more than surprised when the first year our order was 8,711 packets. Last year and this year the order has been about twice that number. With the distribution of the seeds the teacher begins to focus the nature study lessons on gardening.

The outline upon the envelope contains the best of material for nature study for the remainder of the school year. Each of the points may be talked over and enlarged in the classes and the pupils urged to put the same into practice. With the proper care and attention by the teacher interest will abound on every side, and nature study passes from a dry, dead subject of learning about things to a real live subject of doing with things—and acquiring for life a helpful and wholesome sense of enjoyment in the doing.

The effect on the home is soon evident. The garden that has been neglected for years is dug up. Every member of the family becomes interested and many are put to work. The owner of the seed bosses the job, for he or she "has been told how by the teacher." Soon all are watching for the first plant to appear above ground, and then the first bud to open, and so every day has something new eagerly looked for and gladly welcomed. The neglected garden becomes the most attractive spot about the home. The youthful owner feels that it is, at least in part, the result of his or her own effort and labor, and looks on it with pride and satisfaction. It is their very own garden, and therefore demands their care and attention, thus giving healthful occupation and recreation for the summer. As one of the boys puts it: "I spent ten cents for seeds and got ten dollars worth of fun out of it."

When school opens in the fall one day is set aside as flower day. Each building has an exhibit of flowers and vegetables raised by the pupils, and honors are awarded for both the quality and the quantity of the exhibit. Not only on this day but till frost kills the plants each room is supplied with an abundance of flowers for decoration, while every home may have its vase of cut flowers on the table all summer long.

It is also clearly noticeable in our city that home gardening has placed a familiar flower bed in almost every front yard, and a flower box on most porches, while backyard fences have the morning-glory and the nasturtium climbing over them. The teachers also have plenty of material for language work and nature study, decoration, drawing, etc.

Last fall we attempted to supply the

pupils with bulbs ranging in price from a half-cent to six cents each. More than a hundred dollars worth of bulbs were ordered and distribution in the same manner as the seeds. Most of these were potted. Last spring every school room and many classes enjoyed the luxury of potted plants in no way inferior to those of the florist which could be secured only at a price beyond the reach of most people.

On the whole every one is enthusiastic. The press has taken up the matter and helped very much. The movement has spread so that this year most of the surrounding towns have taken up the work, and all report enthusiasm and success. We believe it will be well worth the while of any city or town, or small district, to take up nature study in this practical form. There is nothing we know of that will produce greater results with the same amount of effort. In the past too often we have studied nature merely for the sake of nature. The Home Garden, however, correlates life, the home and the school. Nature is studied not for itself but for life. It appeals to the child and the parent not as a silly fad, but as something that touches the most vital problems of the day—the conservation of the soil and the dignity of labor.

After some pleasant remarks from Dr. Bigelow and others, Prof. L. J. Ulmer, of Williamsport, was elected president, and Miss Cora Smith, of Erie, secretary of the Department for the ensuing year.

MANUAL TRAINING.

THE meetings of the Departments were held in the Chamber of Commerce adjoining the Reed House, to which access was had from the hotel without going upon the street. That of Manual Training was called to order by the Chairman, Prof. Bert M. LeSuer, of Reading, on Wednesday, June 29th, shortly after 2 o'clock, in the main hall upon the first floor. He was glad to see so many in attendance, showing as it does a growing interest in this important branch of modern school work. After a cordial welcome to those present he introduced Prof. E. M. Mixer, supervising principal of the Sheffield Schools, for the first paper of the afternoon, upon

ENRICHING THE COURSE WITH NEW STUDIES.

We have heard a great deal in the past few years about enriching the course of study. But in most cases it is done by adding a little more language or grammar or strengthening the course in weak places. This is certainly all right, but we believe the time has come to enrich or strengthen our courses with modern studies and modern ideas. In the time of our grandfathers the sickle and cradle were necessary implements of agriculture; but we have laid them aside and are using modern machinery. Why not modernize our schools? Why not have manual training, domestic science, commercial courses, agriculture and nature study in every school in which they are needed? True, these subjects are gradually coming into some of our schools, but they are coming in very slowly and in many cases are in the hands of inefficient teachers, which makes the work almost useless. In one of the schools of Pennsylvania into which industrial training was introduced it had become so popular under good teachers that within a few years more than eighty per cent. of the boys and girls were taking the industrial work. A new teacher was then secured, with little or no training, and the number of pupils in this work dropped from eighty to less than six per cent. In one of our large cities an instructor of manual training was employed. He had never had any training along this line, but what difference did that make? Anybody could teach manual training. One day one of the directors who was a practical carpenter visited this department and found the instructor planing a board the wrong way of the grain. The director asked why the board was planed against the grain and received the reply that the board could be planed with the grain or against it—it did not make much difference which. At the end of the year that teacher was looking for another position and the next instructor that was employed thoroughly understood manual training. In another industrial school a practical teacher was employed. He knew his subjects and knew how to teach them. One day he went to the mill to get samples of feed for the class to analyze to see if the feed contained any impurities. Some of the samples were found to be adulterated with oat hulls, rice hulls, buckwheat hulls, ground corn cob, and other impurities. The miller did not like this. He was a man of influence and at the end of the year that teacher was looking for another position, and it is said that there has not been any original investigations in that school since.

How many times has it been said "Keep domestic sciences out of the schools. Let the mothers teach the girls to cook and sew." But how many times the mothers neglect to do this. Only last week I heard the wife of the superintendent of a large manufacturing plant say, "My mother never taught me to sew. It has always been a great disadvantage to me, and to my daughter as well, because I can not

teach her." I heard a teacher say in a half-boastful way that she could cook but very little and could not sew at all. She said, "Mamma always did that work." This teacher's ambition was to take music and china painting. She certaintly was not a musician, was a poor excuse for a teacher, and lost her position. As for china painting what difference does it make to a poor man what kind of dishes he has if his wife is unable to cook things to put into them? Music and painting and china painting are all good in their place. Perhaps there are but few things that will do more to make a home bright and happy than music. But we must first have the necessities of life. I have heard a ten-year-old girl tell what she had learned in cooking and sewing school, what things were cooked and why. It was as interesting as a good story book.

Six years ago I had the honor, so far as I know, of being the first teacher to introduce agriculture into the public schools of Pennsylvania. At that time there were but few schools of this kind in the United States. A great many people said it was not practical. Now the people are changing their minds. Leading educators are advocating its introduction, and two years ago last fall President Roosevelt thought the subject of enough importance to recommend it in his annual message. Some one may ask, How can this work be carried on in a high school? There are plenty of crops and orchards near almost every school that the pupils may work with. Teach the pupils to bud and spray, graft and prune, something about the fertilizers. Have milk tests. Do practical work and you will keep the pupils interested. Do you like wormy fruit? Then take care of your trees in a scientific manner. Why have half of the potatoes rot, when spraying will stop the blight? A year ago I was by an orchard. I remembered when the trees were planted. Some of them were dead and many dying. I was so much interested in the matter that I made an examination of the orchard and found a scale was killing them. If it was worth while to buy the young trees, set them out, and wait all these years for the fruit, would it not be worth while to take care of the trees in a scientific manner? I am inclined to believe that the farmer did not know how. In one case milk that was sent to the factory was suspected. It was sent to the high school and was found to be watered. That night eighteen or twenty pupils from that class went home and said that some one was sending milk to the factory that was watered. It was only a few days before the news reached the guilty party and the watering process stopped. You may ask, How can the work be made practical for the girls? What part of the work on a farm does the housewife do? For one thing, she usually looks after the chickens. Have some incubators in your high school and have your boys and girls raise chickens in a scientific manner. The farmer who has a fine dairy saves only the calves from the best cows. All others are sold. How about chickens? Does the housewife save the eggs from the best laying hens? Why not grade the poultry as well as the dairy? A young lady with wealthy parents was left an orphan. When all debts were paid about all she had left was a large farm that was wet and needed to be drained. She received several bids for draining the farm but to her they seemed high. She spent one year at Cornell studying drainage along with other work, came back home, hired men and superintended the work and saved enough by it to pay for her year's work in college.

Good farmers follow a rotation of crops. Why? You answer, Because one crop continued exhausts the fertility of the soil. In England potatoes were planted on the same ground for twelve years. At the end of that time there were scarcely enough potatoes raised for seed. You would say the soil was exhausted. Was it? Let us see. The next year the same ground was sowed to barley and a large crop was raised. If the soil had been exhausted there would have been a small crop of barley. Plants exude a certain matter that is poisonous to themselves. They are very much like people. For years the people of Erie pumped water out of the bay, used it and let it run back again through the sewers. It was in part pumped up and used over again. This was repeated year after year, and what was the result? Typhoid fever and other diseases. There was no trouble because of lack of water. There was plenty of that, but it was not of the right kind. Now, however, the water is obtained out in the lake.

This is a commercial age, and every good high school should be fitted out with typewriters and a good commercial course. Where the home school is unable to meet these requirements the pupils should be permitted to go to a good business college at public expense.

What is being done along the line of nature study? Several years ago Supt. Babcock introduced Bird Day. How many of you have this in your schools? How many of you or your teachers know the common birds? Yet every boy and girl should know the birds that live in his or her locality and something about their

habits. When your boys are able to do this they will not be going around with a rifle or shot gun trying to kill every bird they see. Buy a good bird book and some colored charts. Help your boys to put up some bird boxes on your school grounds next spring, and begin the work in earnest and you will get results. So far there has been but little work done in nature study and school gardens.

We pride ourselves on continuous term. Could it not be improved? Our primary pupils and sometimes the older ones plough through deep snow in the cold winter days when often it would be better for their health if they staid at home. Nature study cannot be carried on so well in the winter; and as the schools are now conducted there is but little time in the spring. Let the term be longer. Have a swimming pool for both boys and girls. It is just as necessary for a girl to know how to swim as for a boy. The summer is the time for nature study. Some one will say, you cannot spend all your time out of doors, and it will be too warm in the school house. Not if your school house is properly constructed. The poorest butcher knows how to keep a quarter of beef or half a pig from spoiling, and while our American boy at times may be somewhat piggish, and very much alive, yet with our modern fans and cooled air I am very sure we can keep him from spoiling.

What are you doing along the line of school gardens or home gardens? This spring we found where we could get flower seed for a penny a package. A large number of the boys and girls ordered these seeds, and three hundred homes in Sheffield will be more beautiful and, we believe, the children and the parents will be happier. As far as we can our influence should reach to the home.

The training of the youth is a mighty problem. Along with our other work let us not forget the training of our boys and girls along the lines of morality. When we look at the capitol at Harrisburg, the capitol at Albany, the doings of the Council in Pittsburgh, the legislature in Illinois, and the evils in many other places, we realize that there is a work for every true teacher all over this broad land of ours.

Introducing the next speaker, Prof. Lewis M. Cruikshank, of the department of Manual Training in Reading, the Chairman said that he had asked President Lose what the keynote of the convention would be. He replied that industrial education would have much attention. As the School Code had failed in the Legislature, and we want some proper laws in this direction, he had requested Mr. Cruikshank to present the subject of "Needed Legislation in Pennsylvania for the Promotion of Manual Industrial Education."

LEGISLATION NEEDED FOR INDUSTRIAL EDUCATION.

In order to speak intelligently on the needs of a community or state, one must be more or less thoroughly versed in the existing conditions and wants of the various communities which form the said commonwealth. To the end that this assemblage may not number me among the mighty army of nonentities and ignoramuses who speak from impulse and not from knowledge of facts, I have made some investigation to determine the present status and the prospects for Manual Training and Industrial Education in the State of Pennsylvania. In this investigation I was materially aided by many of the educators of the State who have the interest of this work at heart. I also learned that one may send a questionaire of only five queries, with enclosed stamp, and thereby become a philanthropist in that he donates the stamp to the addressee. I hope that some of the holders of fifty of my stamps are here to-day and will return same.

After a pretty thorough investigation I was forced to the conclusion that the work along the line of manual training in this state has not made phenomenal progress, nor do I believe that we can feel especially proud of our standing. In the larger cities of the state the lack of initiative along these lines is deplorable. True, Philadelphia has her Manual Training High Schools which are discounted by none in the country, but when it comes to any form of handwork or training for vocational ends, their grade work is nil. In fact, I do not believe that handwork of any kind is conducted in the grades of Philadelphia.

Pittsburg, our next largest and one of the most wealthy of all cities, reports that some work in wood for boys, and sewing for girls is given in the seventh and eighth grades. Allegheny reports their work as thoroughly organized through all grades and the tendency strongly from manual training to utilitarian ends.

Scranton has this class of work only in a technical High School, and this school presented by a philanthropist. Williamsport has practically no work but will introduce it in their new high school. Reading has woodworking in the high school and hopes to soon extend the same to the grades. York has very little work. Lancaster has none and it does not seem possible to arouse the interest of the authorities in this matter. The city of Erie, I believe, introduced work along manual training lines, in 1903 and its introduction was brought about by a law of same character. My information regarding the work in Erie is second-hand for this city owes me one of those fifty stamps. Harrisburg is doing good work in their technical high school but absolutely no work in the grades. Altoona is conducting as thorough a course in manual training and semi-industrial education as can be found in the state. The Pennsylvania Railroad, realizing the value to their shops, of mechanical work in the schools, equipped the shops at the technical high school at an expense of $25,000. Work is thoroughly organ-

ized in all grades and to the fourth year of the high school. Tidioute reports their work as thoroughly organized through the whole school system. Homestead was fortunate enough to be presented with a manual training high school by Charles M. Schwab. In Pottstown, Pottsville, Norristown, Easton, Chester and many smaller places there is absolutely no manual training work of any kind, while in small communities such work has in many cases never been heard of.

From private schools and colleges the replies read mostly like this: "Yes, we have some wood work for our boys and sewing of an elementary character for girls." "How long a time de we allow? Oh, an hour a week." Most private schools reported absolutely no work of this kind. All engineering colleges report that they have shops in which their engineering students may learn the fundamentals of tool practice, etc., but no manual training in the accepted sense of the word.

We now come to Trade and Industrial Schools, and in these we find something well worth while. Foremost among the schools of this character stands the Williamson School. This institution is splendidly endowed and so efficiently managed by Mr. Bidding that its name is fast becoming honored, and its graduates eagerly sought for remunerative positions. The Thaddeus Stevens School was opened at Lancaster during the past year, and is an exact duplicate of the Williamson School No difficulty was experienced in procuring students and the prospects are good. The Berean Manual Training School, the Hebrew Trade School, Philadelphia School of Design for Women, Philadelphia Textile School of Industrial Art, Girard College, and Drexel Institute are all doing their share of the work in Philadelphia. Pittsburgh has the Carnegie Technical School, Casino Night Schools, and Avery Trade School to furnish men with educational opportunity along technical lines. Outside these two cities there are no trade schools in the state, excepting of course the one at Lancaster.

I believe that you will agree with me when I state that we are behind other states in our advancement along these lines. Let me present a résumé of what I have just read: Eight trade schools in the state, and all teaching the same five trades, namely, machinist, pattern-making, cabinet making, carpentry, bricklaying and plumbing, graduating altogether about one in a thousand of all the children leaving the public schools each year. Twenty-two cities have manual training of some kind. Six have manual training high schools. Seven private schools report some manual training work. The striking part of all this is that, in most cases, the manual training has been introduced through the beneficence of a public-spirited person of means; and in all cities but Philadelphia, Harrisburg and Altoona, the manual training high school has been donated by some one person. In one city of the state, which was fortunate enough to have a manual training high school given them, I am given to understand that the force manning the school is of an inferior character as the city has not supplied or is not willing to supply the means of support for the school. In one case only have I found a trade school founded and supported by the school system of the city. I refer to the Philadelphia Trades School, founded by the school authorities of that city in 1906. This school sent out its first graduating class two years later and the result has been most satisfactory.

Next let me state what our Legislature has done toward legislation along these lines: In 1887, the Governor of the State was authorized by the Legislature to appoint a committee of educators of the state to investigate the subject of industrial education and to make report to the legislature of 1889. A committee of five was appointed, and perhaps some of that committee are present here to-day. I know that Dr. N. C. Schaeffer was one of them. These five men gave the subject very thorough and careful thought. One of them spent two months in Europe in the interest of the investigation, while others explored neighboring states. Their report to the assembly of 1889 was a most comprehensive one and their recommendations good. Let me quote some of these which may be of interest: "We recommend that an appropriation of $5,000 be given each state normal school for equipment of necessary shops and an additional $2,000 yearly for maintenance." "That a summer school of Manual Training be opened at State College." "That drawing be introduced into every school." "That the state require all new school buildings to have rooms providing for Manual Training." "That provision be made for grouping rural schools for manual training purposes."

The Legislature of 1889 after considering these recommendations at some length dropped the matter entirely, and nothing further was done until the school code of 1907 was formulated. In this code we note the provision, "The board of school directors of any school district of the second class in this commonwealth, when requested by 75 or more taxpayers, shall establish and equip an evening manual training school for pupils fourteen years of age, provided that no such evening school shall be opened unless at least 25 pupils apply." This is the only provision made in the code of 1907 and is in direct contrast to the elaborate report of 1889. Now that the school code of 1911 is coming up for consideration by the Legislature, let us who are interested in the needed legislation toward industrial education, wake up to the possibilities apparent. If the school code, with its very thorough revision, passes successfully through this Legislature, and does not embody the necessary measures to help out the industrial education situation in the state, then it will give a decided setback to this movement and will make it a difficult matter upon which to approach the succeeding assembly.

Let me present briefly what other states have done and are doing to advance this work. Massachusetts has been the most active state in the Union, as far as thoroughness goes, in dealing with this subject. Some years ago a commission was appointed to make investigation, and the legislature acted very favorably on their report, so that any city or community in the state may find encouragement and financial backing when they approach the matter of

introducing manual or industrial education. Various cities have been taking deep interest in this branch of education and experiments of various kinds are being conducted throughout the state. At Fitchburg we find the coöperation school between high school and factory. The pupil works in the factory for one week and spends the next at the school. This plan works very satisfactorily, I believe. Springfield also follows a plan of having boys over fourteen years go to school from nine to twelve o'clock and work in the shops in the afternoon.

In New Jersey a commission made a report to the assembly of 1908 and stated among their findings that many boys and men deplored deeply the want of a school where they could become versed in the elements and principles of their trades. The Jersey commission recommended that manual training should be encouraged through the cumpulsory attendance period; that vocational training should be provided for those who have passed the age of compulsion; and that evening schools for vocational subjects should be opened. They finally recommended that a permanent commission, such as exists in Massachusetts, should be appointed. In Vermont an act of 1909 provides for the payment of $250 per year to any town, city or district maintaining a manual training department in a high or grammar school.

The state of New York, which stands at the head of our progressive states, in so far as education is concerned, has done much to further the industrial education propaganda in the state. A Division of Trades Schools is maintained at Albany with a most efficient head. It is the duty of this department to investigate and organize trades schools throughout the state, and to advise, support and otherwise aid this great cause. The legislature has provided for aid to industrial schools and any community maintaining an industrial school of twenty-five pupils, for forty weeks of the year, may claim their $500 from the state, with an extra $200 for every additional teacher. They seem to have put aside the claim of "manual training," and made their law primarily to deal with schools which train for bread-winning. This seems to be the tendency of the day, and is not altogether right. It is very true that manual training does not actually fit for bread-winning in the sense of trade training, but is not its function in the general scheme of education quite as worthy, and three times as important to many minds as is algebra or Latin? However, I will descuss that further on in the paper.

I do not find that many Western states have presented this subject to their legislative bodies, but there is much interest taken in the teaching of handwork. Milwaukee has been bragging about her trade school under city school system supervision, but I gleaned, when visiting there last December, that there were no crowded conditions nor large waiting list. Our national problem along these lines is a mighty one and I am thoroughly convinced that one reason, and a large one, is that our law-makers have not become properly interested. Judging from accounts of the meeting of Pennsylvania's legislature last session, when the school code was considered, I cannot believe that any one was particularly interested, so far as the interests of the schools were concerned.

And now I shall present what I consider some of our needs, to the end that industrial education may receive the attention due it, and may be granted its just place in the public school systems of our state. In making these statements I shall not confine myself to needed legislation, for it can be of small avail without help from the proper influences.

I. The first and by far the most potent of our crying needs is aroused public opinion. Give us a populace alive to their wants and the path will be a smooth one. In Reading we have tried for two years to institute an intermediate industrial school and have wound up in a fizzle and no school. Do you suppose that our 97,000 people really understood what was being suggested and the true worth of such a school? Suppose that the thousands of parents whose sons are destined for the ranks of cheap labor could be brought to see the standing and capacity of their boys after three years, or even after two years, of thorough training in fundamental tool processes in shop mathematics and business English—why, they would rise as a body and howl for the school, not sit at home and agree to the abstract statement that such a school would, or might, be good for their community.

II. A legislature consisting of men who are truly interested in the best for their communities, and open to the just pleas of their constituents.

III. School boards appointed or elected for their fitness to hold office. Men who are in touch with the times and with natural evolutions necessary to meet the ever-changing needs of the times. Men who are not afraid to go before their fellows and tell them of the improvements needed and why. Men who, when they know that they are right and that their stand is just, will go ahead, in spite of critics and pessimists who bark at any form of progress.

IV. Good teachers. Hand in hand with good management must be placed the teacher. Many a good equipment has failed utterly because inefficiently handled. Many a manual training department has fallen into disrepute through the indifference, laziness and total inefficiency of its head. I have seen and personally known about 300 manual training teachers in the United States. Of this number I should say that one-half are totally incapable of producing good results among children. The prime cause of this state of affairs is their laziness. Ask the average manual training teacher where he learned what he knows of the profession, and he will say, "In one or two years of summer school." Ask him why he entered the profession and he will likely tell you that he liked the work. But he will not tell you all. The rest of it is that he wanted an easy job; and he got it—for no profession permits of greater abuse. My pessimistic conviction has been brought about by doing what I have asked you to do—asking them. I would not have you believe that I do not recognize any good manual teachers

for I recognize some very worthy ones before me.

V. My fifth point need not be dwelt upon, for it has been written up and then reviewed and again presented, since Adam, namely, better salaries for those that deserve them; another profession for those who do not.

Several towns of our State have replaced competent pedagogues with artisans during the past year, because the artisan could be hired three hundred dollars cheaper. The consideration as to whether they can teach and their butchery of the King's English do not seem to enter into the matter.

VI. Finally, I come to the consideration of the title of this paper, "Needed Legislation for Manual Industrial Training in Pennsylvania." In the opening pages of the paper I spoke of the elaborate report of the Industrial Education Commission of 1889, and mentioned its complete overthrow in the assembly. I also told of the short clause embodied in the code of 1909, which also suffered defeat at the hands of our law-makers. As far back as the adoption of the State Constitution this work was heard of. The Pennsylvania Frame of Government required that all boys be taught some useful trade. However, the fact remains, that no legislation such as we are considering, good or bad, has ever passed the body of men who represent us at Harrisburg.

Commissioner.—It seems to me that our first law should be for the institution of an industrial education bureau at Harrisburg, in connection with the State Educational Department. This bureau should be impowered as in New York State, and should have at its head a man of education, executive ability, enthusiasm, zeal and energy. A man who knows Pennsylvania, and who would willingly spend his time in building up this important phase of education.

Manual Training.—I believe that handwork along proper lines should be given students in all grades—this from the general educative standpoint—but it is a question as to whether there should be legislation with regard to Manual Training work under the sixth grade. Handwork in wood in the seventh and eighth grades preparatory to trade or industrial school work and as an educative subject should be provided for. Proper provision should be made for general manual training work in all high schools but not above the first two years unless it be a technical or trade high school.

Provision be made for introducing a thorough course in manual training for teachers into every state normal school of the Commonwealth, and a good equipment should be supplied to each of these schools together with thoroughly competent teachers. Further than this, a limited amount of time upon this subject should be required of each pupil and the state inspector should rule the course and see that it is carried out. I remember a homely phrase of some man whom I do not know, but it was expressive: "The way to stop having criminals is to quit raising them." We don't want poor teachers. Let us commence to train good ones.

Provision should be made for encouraging small communities in this work by helping them with small appropriations. Encouragement should be given small rural communities to combine in the teaching of industrial and agricultural subjects. Legislation should provide for and encourage the training of competent teachers of agricultural subjects and I should like to see courses of lectures provided for in our schools which would tend to take some of our young blood back to the farm with minds trained so that that much-berated, scorned and laughed-at profession might come to its own, and our state be more like those prosperous ones of the Mississippi Valley, where many of the leading citizens are tilling the soil. To me, the conducting of a $20,000 farm is a business of as high a class and certainly of as pleasant character as any city industry, and just so soon as our state educates some of its masses toward rather than away from the land, just so soon will the status of our small communities rise and the productiveness of our soil, be increased.

Provision should be made for the establishment and maintainence of continuation schools and plenty of them. The proof of the need of such schools is ever before us. Witness the Scranton Correspondence Schools with their 200,000 students enrolled. Notice the yearly over-crowded enrollment of the Spring Garden Institute, the Drexel Institute, Franklin Institute in Philadelphia, and the Carnegie Schools at Pittsburgh. Many cities have their high schools open in the evenings and report immense enrollment at the beginning of the year. But, if the truth were known, in many cases this enrollment is decreased to one-fourth by the time for closing at the end of April.

The reason for this is that pupils are not getting what they want. Most high schools present the same courses at night as in part of the day time. The mechanic, clerk, draughtsman, bricklayer, electrician, etc., has gone into his trade at fifteen years and was schooled only to the fifth grade. He notes his inefficiency and goes to night school to make up for it. He cannot see any connection, however, between algebraic formulæ in the abstract, and the calculation of stress and strain in materials in the shop. He cannot see the relation of the study of German, to the reading of a blue print, so why force these things on him? We will all admit that the world would be beautiful indeed if every one would receive a highly cultural training, but these men will not stay in the school if you force this on them.

Let the legislature provide a law something like this: That every town of the State in which a certain number of taxpayers request it, and a given number of pupils are certain, open its high school, or other building at night, with the name of Evening Continuation School. The purpose of such school should not be to give a diploma, but the directors could issue certificates of efficiency. Let the school be opened only to those who work in the day and are of a stipulated age. Let the courses be somewhat as follows: Practical mechanical drawing and blue print reading for mechanics; Shop arithmetic, algebra and geometry, dealing purely with the actual problems confronting shop men; busi-

ness English, writing of letters, forms of bills, checks, notes, orders, making out estimate sheets, contract sheets, and estimating on jobs; the history of industry; local and state laws with direct application to daily life; and simple economics. Weekly lectures should be given by competent authorities, dealing with topics of living, of politics at large, of local subjects or perhaps intelligent handling of local problems by members of the school. Let the school be supported partially by the state and be manned by high class, interested and interesting men. Such a school, if properly conducted, must meet a popular demand and would never have its enrollment in danger. I do not believe that an Evening Manual Training School such as provided for in the code of 1907, is what we want, nor do I believe that the school above described should go by that name.

Trade Schools.—The State should encourage and financially aid all attempts to establish trade schools in a city or community. Although we cannot expect that the Williamson School with its expense of $400 per capita, per year, can be extensively duplicated, yet its fundamentals may be instituted and conducted at much less expense. Each community should look out for its own needs. It would be a detriment to the cause if our laws were inflexible and demanded the teaching of bricklaying in a textile community. State aid and encouragement should be afforded all co-operative plans between factory and school, and in cases where factories wish to open evening schools in their own establishments.

Finally we come to the question as to whether the state should provide for intermediate industrial schools, to take pupils who are leaving school at thirteen or fourteen years and train them through two years for entrance to trade schools. Unquestionably such a school would be well worth while but it is questionable as to whether such a school will successfully hold the class of boys to whom its doors are opened and whom it is designed to serve. An ideal course for such boys would be to have them get plenty of elementary manual training in the grades and enter the intermediate industrial school at twelve or thirteen for two years, after which they could enter trade school or high school. I am interested to see results from systems of this character which, I believe, are being proposed throughout the country.

Whether the next Legislature helps us or not is a matter of conjecture, but that does not put us out of the ring. There are more than a handful of teachers and citizens of the state who class among the "aroused public." Down in the southern part of the state I know that there is a rising and growing interest in this work and if the Assembly of 1911 does not give us laws to help the movement, there is another one coming along in only two years. Commence work on them early. In the few years that I have been teaching, and attending conventions, there have been let loose in my hearing, about six big volumes of pessimistic talk about what we need and what deplorable conditions exist in the educational world. How would this do for a convention programme?

Front page: Who is your Congressman? Programme: "What we want in the next Legislature." "How best to approach individual members of that body." "How to get the masses aroused in your own immediate community." "What has our Legislature done to help education? and if not, why not?"

If such a programme were arranged and carried through, efficient members appointed to push the matter, and the coming legislative body advised, petitioned and shot at from every quarter of the state, the title of our next year's paper would not be "Needed Legislation in Pennsylvania" but, might read as follows: "What we succeeded in getting from the Legislature of 1911."

In the absence of Prof. P. M. Harbold, principal of the Model School at the Millersville State Normal, who was detained at home by illness in his family, his paper, presenting "A Layman's View of Manual Training," was read by Miss Iris Prouty, secretary of the department. The chairman had asked specially for this paper, that "we may see ourselves as others see us."

A LAYMAN'S VIEW OF MANUAL TRAINING.

When I was asked to give my opinions of manual training before this department, it seemed to me that the experience might be quite exciting to me and not altogether satisfactory to those who, as specialists, are interested in the cause of manual training in the public schools of our State. Upon second thought, however, courage came, and I recalled that the priest is sometimes profited by a layman's view of his calling and its success among the laity. And with this thought in mind I prepared the few suggestions I mean to give here now. Nor must it be forgotten that authorities on manual training were not consulted. I have tried to express candidly my own opinions and, in some cases, my strong convictions of this subject.

Of course, all of you specialists readily see that I, your scapegoat, may be the butt of all good-natured fun. You should instruct me, and not I attempt to teach you. And I shall not attempt it. I do not want to emphasize this, however. I hope this brief comment on your specialty will arouse discussion here and you will ask questions pertinent to a professional knowledge of manual training. Then too you may be enabled through my misconceptions to set aright others who are interested in schools. With these few remarks introductory to our problem, let us launch into the midst of our discussion, which I shall take up under these four heads: Some Drawbacks to Manual Training; the Developmental Value of Manual Training; the Vocational Value; and the Future of Manual Training.

Some Drawbacks to Manual Training.—It is well to dispose of our unpleasant things first, on the principle that to leave a good taste in the mouth is much safer than to leave a bad one. Really, as at present taught, supervised and generally handled, especially in the elementary schools, there are some very serious objections to manual training.

The first of these drawbacks or objections grows out of the fact that manual training is a comparatively new subject of instruction to find its place in our public school curriculum. Time will come to our assistance here, but that is not all that we need. This subject has been looked upon—indeed, is still looked upon—as a "fad" which must sooner or later be got rid of. And manual training teachers sometimes teach the subject as if it were going to change by to-morrow. Phases of the subject receive emphasis now, and soon are forgotten. Once it is wood work, then all basketry, and again all bent iron work, and then pyrography which is followed by nothing. Every teacher has a special aptitude for one phase of the subject and then emphasizes that to the exclusion of any other phase of the work. This has one advantage. Each year the subject seems novel to both teacher and pupil.

The other branches in our curriculum, which have reputable standing, are less scattering in their methods. There are texts, which contain the gist of the matter, so that the principles gone over one year can be employed the following year.

The second objection frequently made is the expense. This fact grows out of conditions just stated above. Each new idea or fad requires new materials and probably a change in equipment. Coming every year or every few years, the term of service of a specialist in a school or system of schools, these fads or changes in manual training call for an unusual and unwise expenditure of money.

But a greater waste is the expenditure of valuable time. In changing from one new thing to another there is an unnecessary, and yet a seemingly necessary, expenditure of effort and time on the part of the teacher as well as by the children. No third or fourth grade teacher under present unsettled conditions of manual training, could safely prepare to do raffia or reed work in her grades, to the exclusion of all other phases of this work. She must be a master at all, or at least, of many phases of this work in order to be able to understand the suggestions and instructions of the special manual training supervisor. And then add to this condition the perennial changes of specialists. What can the grade teacher do but rebel against such unnecessary crowding of the curriculum, when the crowding comes in reality from a condition which the special supervisors create? Crowded conditions arise from the unsettled condition of professionals, not from too great demands by the people.

The remedy is evident. The manual training teachers and supervisors must come to some conclusions soon or, at least in grades, their subject will have grown into disrepute and be opposed, which condition, it must be evident, would have to be regretted.

Now, if the special supervisors or teachers of manual training can get together and show a genuine aptitude in adapting their subject to real conditions, they had better remedy this defect. If they do not they will show up what seems at present like another drawback to the highest interest of a specialty as well as of the schools. By working out a real, satisfactory, workable programme teachers will be enabled to use materials advantageously and economically and so conserve them for their best use.

Too many of us specialists in all lines of work have no conception of the problem of taking care of materials. We are wasteful, and our children are rapidly becoming so. A strand of raffia, a reed, a piece of cardboard, a piece of wood wasted, teaches so much carelessness. One of the best lessons a student in the chemical laboratory, under a wise instructor, can learn is that of carefully handling solutions so that not a drop of them is lost. You have never seen a good analytic chemist who was careless in dealing with materials and in handling his solutions. Just so with manual training. Here lies a great means to real moral instruction. And yet, as I said, the lack of this proves a tremendous drawback to your specialty.

Another apparently insignificant matter is the problem of dealing with the so-called finished product. What shall be done with the various articles made by the children? One answer to the problem in upper grades and the high school is this: Let the children make things which have some value to those who made them, then they will have interest enough in the articles made to take them home and care for them. But this raises another practical problem. In a free school system, who shall pay for materials used to make articles which can be put to use in the home?

But the great problem lies with primary grades where children make simple articles of cardboard, raffia, reed, etc., which cannot be made use of in the home. Shall the children be allowed to take with them all finished articles, to keep or to destroy them at pleasure? or shall the teacher destroy them after a time? It is the moral effect

on children that raises this serious question. I wish manual training supervisors could give us a final answer on this question, but no two seem to agree in practice, and all aim to get rid of the "stuff" as easily and as quickly as they can, forgetting the effect on the child who is passing through critical stages when the utmost care is hardly good enough.

As I said these are some of the drawbacks to Manual Training as found in our schools to-day. I will admit that they are of a minor character but I must insist that the regular grade teacher as well as the superintendent must constantly induce counteracting influences against the rather doubtful effect of the drawbacks just hinted at. However, with these hints as to grounds for opposition, or rather some conditions which need careful study by the specialists, let us consider the positive side or values of manual training. And first then

The Developmental Value of Manual Training.—There was a time in the history of our public schools when it was considered important that a child should be quiet, able to sit down for some time, and concentrate his mind upon some subject of study or lesson. The school, according to the same ideal, that had least noise and less motor activity, was considered the best school. It was thought to be a well-governed school if the children implicitly obeyed and sat in silence. This was the "static ideal" of school which, to some extent, in the minds of the best teachers and foremost educators, is rapidly passing, and deservedly so.

The opposite conception of education, the "dynamic ideal," to quote O'Shea, holds that a child is by nature active, that he must learn things in a muscular way first, that motor activities are the means of bringing into knowing relations the external world to the child's mind. Stating it psychologically, motor activities furnish fundamental, or simple, ideas upon which the development of higher ideals depends. To illustrate: Learning the strength of a horse in a motor way enables one to understand all horses so much better. Likewise learning any material thing by coming in contact with it, furnishes the fundamental knowledge which will aid in understanding more about it.

Stating this same general principle in a neurological way, we should hold that motor activities furnish means for the development of lower brain areas or centers upon which the functioning of higher areas depends. Whichever way these motor activities are looked at, the application of the principle to manual training results in the same practice.

We believe then that manual training holds a highly important place as a means to the development of fundamental ideas; psychologically, or fundamental brain areas looked at neurologically. This conception demands greater attention to manual activities in primary grades, especially in the first two or three years of the child's school life. A broader and firmer foundation for higher development and better understanding will be laid if manual training receives more attention in primary grades. We need to be careful to present it in the psychological and not the logical order.

This phase of manual training is not nearly so attractive to the specialist as that of which we shall speak later, but I firmly believe that it is no less important. It is held by many that a child's growth may be hindered and his progress in mastering the branches higher up in the grades and the high school impeded, because an insufficient and unstable foundation made through directed motor activities prevents him from understanding fully. It is to be regretted that motor activities and their direction and training receive so little attention in our generally accepted best school systems.

To emphasize this matter, permit me to bring up a familiar example which illustrates my point exactly. It is a common saying, founded on observed facts, that the country boy is capable, as a rule, of longer and greater mental development than his city-boy competitor, provided that both are given equal opportunities. Now the one chief reason for superior capability lies in the neurological basis laid by the country lad while he learned all his environment in a motor way. He got so many fundamental ideas upon which to build his higher development that the city boy, who has little opportunity for such motor activity, unless manual training furnish the means, could not have, and consequently the latter reaches the maximum of growth sooner.

Manual training has a developmental value in grammar grades and in the high school. It trains the hand and brain, or mind, to coöperate in such a manner as to enable the former to carry into successful execution the ideas set in motion by the latter; and in turn the mind gets clearer conceptions through skillful execution by the hand.

Furthermore, whether we still have faith in the old doctrine of "formal discipline" or not, we must conclude that the fact that in manual training we are constantly called upon to judge impersonally, and that our judgments are constantly being tested in

practical ways, makes for foundations of sound moral development.

Vocational Value of Manual Training.—When we come to consider the vocational value of manual training, it seems almost unnecessary to say that this has application to the upper grades and the high school. It should be remembered, however, that children who never enter the high school have as great need for vocational training as those who do enter it and pass through its curriculum. Indeed, they belong to that large group who must earn their living by means of hand work and who are least able to spend time and money to learn a trade or a profession. These must have some opportunity to learn the elements of their future industry or calling while in the public or state schools.

From the standpoint of the State its schools must fill three needs, two of which are of such great importance from the State's point of view that all moneys appropriated for the support of public education must in some way contribute to these needs. The first is this: The State aims to make its own citizens self-suporting. We have long since learned that it is more economical for the State and more advantageous to the individuals of the State, to appropriate public moneys liberally for those institutions which aid to make every one self-supporting than to institutions which take care of those who have not learned to support themselves. The State can also demand that in its schools those subjects of study which contribute toward making its citizens self-supporting shall have due consideration. The general public censures us teachers and criticizes our school system because the youth of the land are being educated away from industrial pursuits toward mental work only. Not nearly all this criticism is apropos; some of it I fear is.

To repeat: The State can demand education toward a vocation provided such a training makes men more nearly self-supporting. I believe that manual training, when properly taught to boys and girls in grammar grades and the high school, will create a large amount of interest in industrial affairs. Both will then have a different attitude toward life. The State will have less paupers to support and fewer dissatisfied citizens to contend with when the vocational side of your specialty has worked itself out in the life of the community.

The second aim of public education which needs to be stated here is closely related to the first. Education fostered and supported by the State should make its citizens industrially progressive. To this, I believe, manual training as an industrial art will contribute its good share.

The Future of Manual Training.—The tendency to-day is to group the subject of manual training under the broader head of industrial arts. This is a cue to my prophecy, and leads me to say that industrial education is a term broad enough to embrace all departments of human knowledge which lie in the realm of modern activity. For a time—and that time seems near at hand—manual training will be apparently under a waning star. But in reality its future is as bright as that of any other of the arts. Just now, if one may judge from current tendencies in school systems and current pedagogical writings of the more sensational type, the only side receiving emphasis is the industrial one. But we shall soon allow the pendulum to swing back. We shall look for heralds announcing the reappearance of advocates of the developmental view of this subject as well as of its disciplinary value. In short, manual training will be one of the prominent departments of the larger group of subjects classed under Industrial Arts.

But a more important phase of the future relates to the handling of the subject in actual school work so that it shall be both practicable and pedagogical. This leads to the question of the training of teachers.

Too much of your specialty is too exclusively in your own hands. It is a tremendous hindrance to its success. The time will come, and you must aid in working out this problem, when the grade teacher is sufficiently trained to carry into successful execution her own ideas as well as those of the special supervisor. Furthermore she, being in close relationship and touch with the child, will suggest to the specialists some practical hints, and may even criticize the programme set down by the same. Is there any good reason why the supervisor of manual training should be required to train teachers for her subject any more than the reading or arithmetic specialist? Indeed, will not such a condition soon come to pass that specialists are needed only in the training of teachers in normal and special training schools and in teaching this subject to high school students? Grant this and the developmental side will receive emphasis in the grades and the vocational in upper grades and the high school.

No public school system can lay itself open to the criticism that it attempts to prepare people for all callings in life. And unless for all, it can not train for the few. We shall adjust this matter when common sense takes hold of our plans and programmes. Manual training will then be

prominent in our educational system and if will be taught by the regular teacher who will be able to present it as well as any other branch of study.

Another interesting paper, and the last of the afternoon, was on the practical teaching of "Household Science in Public Schools." It was read by Miss Della G. Sturgeon, the director of domestic science in the schools of Erie, as follows:

HOUSEHOLD SCIENCE IN PUBLIC SCHOOLS.

All who have as their aim in life the determination to leave their corner of this world a little nobler and a little happier for having lived here, realize that one vital spot for attack is the improvement of the home.

Within a quarter of a century conditions have changed so that the training of the girl for the duties of wife and mother, which we all agree is her noblest calling, must be gained somewhere besides in her own home. And these changes are most evident in the middle and upper classes, where the home life comes nearest reaching our ideal. In the homes of these classes, the mother has found opportunity to use her keenest effort and to gratify her highest ambition. Much time and strength is now being saved her by the development of former home occupations into independent industries, and by the invention of labor-saving apparatus. These improvements have come with phenomenal rapidity and adjustment could hardly be expected to keep pace, but we find great encouragement in the fact that there is much to indicate an appreciation of the situation on the part of many women, and sincere desire to co-operate in meeting the changes intelligently.

Proper training must be the solution of the problem of the future homes. In these days of specializing people are beginning to realize that the training of a home-maker is not to be treated lightly, but that it includes all of the arts and sciences if one is to be proficient. The aim of the public school can hardly be so high as this, but what we do hope to accomplish is the laying of a foundation of the underlying principles of the branches of cooking, serving, cleaning, sewing, and home nursing, which will teach the girl something of the life that awaits her, and will stimulate a desire for further information and efficiency.

"To give a history of the varying home conditions, and the efforts that so far have been made to supply the necessary training, would be," to quote Edith Brown Kirkwood, in her article on "Home Science in Illinois," "a task for an enthusiastic pioneer historian who would find confronting her a game with which, in comparison, the hunting for the proverbial needle in the haystack would be a pastime. It would be a piecing together of a patchwork of ideas and hopes, the weaving of little threads of things accomplished and ambitions deferred but about to be realized, of truths crushed to earth with the chance that they might rise again; no two bits of interesting and essential history residing in one spot in the country, everything as yet in those first real stages of development which ever border so closely upon the undeveloped, but fascinating as are all other things whose promises are yet to be fulfilled, knowing that because of their worthiness they must be fulfilled."

The discussion of higher education for women came to a head when, in 1833, Oberlin was founded. Antioch College at Yellow Springs, Ohio, in 1852, was the first college, in America at least, to offer the women equal privileges with the men, and the University of Illinois followed in 1870.

Immediately there arose the problem of a course peculiarly adapted to women, who at this time contended that a special course was unnecessary, that mentally they were fitted for the studies in which man found interest. Mentally they were fitted—that has been proved—but even the most advanced woman of that day has come to realize to-day that woman does occupy a special place in the world, and that her eternal fitness for man's scope of effort is not the question. She may be fitted and equipped for any avenue of life open to her as her undeniable right, but she must be prepared for the special line of work that nature demands of her. She must recognize that the intelligent home is the best security of the nation, that there is hardly another field where intellect and ability are so constantly employed, where native common sense and human sympathy are so much in demand. She is a kind of special messenger of Providence in the care of the child and the teaching of the man to be, the care of the being. Man provides for the physical needs of the family but woman has the training of the family and always must have, no matter how much she may desire to become an out-of-the-home producing power.

The next step in educating women came in 1874 when the first college course of domestic science in the United States, and probably in the world was opened in Urbana, Illinois. Strange to say, the greatest difficulty encountered in the new work was the conquering of an almost universal prejudice, both masculine and feminine, when, at the end of six years of faithful effort success came within reach, it was sacrifiecd on the altar of matrimony and the teacher very sensibly decided to

put her theory into practical use. This sacrifice proved almost the death blow of the cause. Therefore it was not until 1900 that the present department was organized.

In 1897, household science was put into the public schools of Urbana and Chicago. Other cities followed before long until now there are fifty-one towns in Illinois in whose public schools it is being taught. To-day there are 10,000 little girls in seventh and eighth grades of Chicago schools learning the rudiments of cookery, and 12,000 learning to sew. In the high schools of that city twelve teachers are instructing in science and ten in arts, both courses being elective. What is best, Chicago boasts a long line of high school girls eager to be taught in these branches, more of a victory than the public may imagine. Below the seventh grade the sewing is taught by the grade teachers. "The work is constructive and always there is held up the reason for the effort—there is ever a purpose," says Miss Snow, the Supervisor of Domestic Arts and Science, and recently Instructor in Pratt Institute. They do not make samplers and the things of comparatively no use, but spend their time on that which leads to something definite.

In New York State the first effort to establish a special training for future mothers took in 1880, the shape of the Kitchen Garden Association, which four years later became the Industrial Educational Association. This Association instituted an active campaign for manual training which resulted not only in the foundation of cookery, sewing, and carpentry classes but also in the foundation of those splendid Institutes, Pratt in Brooklyn, Drexel in Philadelphia, Armour in Chicago, and the Teachers' College in New York, where teachers were to be trained for the new branches.

In the public schools of the state there are now fifty-two towns where domestic science is included in the public school curriculum, four of the towns including it in the high school course.

In New York city cookery was introduced into ten schools in 1888. In 1896, when Mary E. Williams was appointed director, it had been extended into two additional schools. Now under her directorship there are one hundred and thirty-seven instructors for one hundred and fifty-seven cookery centers. The success met with in the high schools in which it has already been introduced seems to warrant plans for giving it a place in all of the high schools, both classical and technical. A course of study has been arranged for older women in the evening high schools and it will undoubtedly meet a great need.

In Massachusetts, seventy-five towns are now offering a household science course in the public schools proving that even thrifty New England housewives appreciate the help that public educators are endeavoring to give them in the training of the mothers of the next generation.

Turning our attention to the West, we find that California is taking rank in the interest displayed in the practical education of children. It was introduced first in Santa Barbara in 1891 by Miss Anna S. C. Blake, who at her own expense established and maintained for six years the training school bearing her name. Shortly before her death in 1899, she offered the property to the city and it was then incorporated into the public school system of Santa Barbara. From this point the work has been extended until nearly every city and many of the smaller towns now give a special training in the housewifely arts as one of the regular branches in the public school course.

A new normal school with ideal buildings and equipment has recently been opened with the purpose of perfecting the domestic science system in the various cities and, what is of greater necessity, introducing it into rural schools. In San Francisco, in spite of the disastrous effect of the earthquake much effort has been given to re-establishing the domestic science work, with the result that there are now two thousand children being educated along this line.

Much is done to encourage and interest these western girls. Exhibition teas are occasionally given to proud parents and no less proud members of the school board. Although every educator in home science believes most emphatically in a firm foundation of less elaborate cookery, still in San Francisco they realize that enthusiasm is kept at high-water mark by appealing occasionally to the sense of beauty and the love of the unusual, so that there at least they depart from iron-clad rules to the extent of salads, fancy sandwiches, and various cakes, at these exhibition teas. One group of girls presides in the kitchen, while another receives and waits on the guests with pleasing deftness.

But with all of this, bread is not neglected. It is made a special study in both years of the high school course. It is claimed that the girls graduate with sufficient fundamental knowledge of home-making to start housekeeping on a sound basis, the real purpose of the work being the making of good cooks and competent housewives. The home-making instinct is planted deep down in the heart of every

girl, in some it awakens spontaneously, in others it would remain forever dormant if it were not aroused by outside forces.

The California Polytechnic School at San Luis Obsipo deserves special attention. It aims to give a training in the life of the home, the farm, the orchard, the dairy, and the shop. Consequently, domestic economy has been made a special feature. The funds for establishing this course were appropriated by the state legislature of 1901 and it has been flourishing steadily since 1903. The buildings principally devoted to this subject contain large, well-lighted sewing rooms, a kitchen, dining room, lecture hall, laundry and pantries. The girls under instruction must take both the courses in cooking and sewing. In addition to the sewing, which includes the making of an entire set of clothes, and the practical and thorough cooking lessions, a special point is made of marketing, keeping accounts, figuring costs of luncheons, serving, and presiding as hostess. Thus enthusiasm is carrying forward the work in the West. Wherever one turns one is greeted with these high aims and splendid efforts. The work receives special impetus from the California Teachers Association of Manual Arts, for without this organized effort little could be accomplished.

Nothing has so far been said of domestic science in the South. And really in the South is greater effort necessary for accomplishing equal results, on account of the natural inherited feeling that such work is the special calling of the negro. Effort is nevertheless being made and the South is yearly sending in a larger demand for teachers of this branch.

Selecting Baltimore and Washington as representative southern cities, a little of their history might be interesting. In the public schools of both cities it is rapidly gaining its proper place. The equipment in Washington is decidedly more meager than it should be, making it necessary to do the teaching principally by demonstration, the children doing little of the work.

In Baltimore the accepted individual equipment makes the work more interesting and effective. There the cookery centers average one to every four or five schools, both colored and white. In some centers where fewer schools are taught more grades are included; in the poorer sections, beginning with the fourth grade, forty minute lessons several times each week are given; in the upper grades lessons range from an hour and a quarter to an hour and a half. Special attention is given to the mentally deficient. In the wealthier parts of the city children from the seventh grade, and from the sixth, seventh, and eighth grades are given the work. Public night classes are held from three to five evenings each week from October 1st to April 1st, in each of the fifteen cookery centers.

Last and almost least comes our own State of Pennsylvania. It boasts only three cities that are enterprising enough to devote a share of the deserved amount of attention to this work, and eight towns that are making any effort, however slight. It was started first, perhaps, in Philadelphia where it was introduced in 1887, and where the cookery lessons are now provided for over six thouand girls of the sixth grade. In true Philadelphia fashion the work is carried on in a most thoroughgoing manner, and time enough is devoted to the work so that nothing need be slighted.

Sewing is taught in all grades from the third to the eighth inclusive. The girls of the normal school are being taught how to teach sewing, but now special teachers are employed in the grade work. These are assigned to districts comprising adjacent schools. The city provides each pupil with needles, pins, thimble, scissors, cotton, emery bags, and paper for drafting patterns. Muslin, bleached and unbleached, is also furnished. The city allows seven cents per annum for each child. This sum must provide materials for teaching the stitches and seams of the course of study; the material for garment is furnished by the parents of the children.

In Pittsburgh the work is receiving an equal amount of attention and we may well be proud that greater Pittsburgh is upholding the reputation of the State. In Erie, the equipment of the cookery center, in operation, is very good. The individual method of instruction is employed which, with its few disadvantages, still far outreaches the group method in many ways. It offers more opportunity for development of reasoning power and individuality, more skill in management and more deep-seated interest. In this method each child follows a recipe calling for quantities small enough that she can easily dispose of the resulting dish, thus encouraging an honest pride in her effort. When it is possible, the food is sent home that there may be aroused the attention and interest of the parents whose coöperation is most essential.

Each lesson consists of a review of the essential points of the preceeding lesson or lessons, and the connection between the preceding and the present lesson is pointed out. Suitable and practical theory always forms an important part of each; and the dish-washing, care of linen and the cleaning claim their deserved amount of attention.

For the past year the instruction has been given principally to the girls of the seventh and eighth grades but, in addition

to this, we hope some day to have it established upon a firm foundation in a regular high school course.

Although so much has been done throughout our country to provide this necessary training in household science, still the field is vast and there is infinitely more to be done before we can feel that we are doing justice by the future of our nation. To educate the children is absolutely necessary to the welfare of any nation, but the problem under discussion is, "What manner of education shall it be?" Education should be a preparation for the duties of future life. After deciding what the duties will undoubtedly be—and I feel that we have made our decision in regard to girls—the next thing to do is to press unswervingly toward the goal. There must be a discrimination between the essential and the non-essential, between those things which produce culture alone and those things which will be tangibly useful. The public school curriculum is now so comprehensive that there is danger of overcrowding; even we who are most enthusiastic over the work realize that the time is grudgingly spared to us. If the public knew more of the good that has been done and the benefit that could be gained from industrial education, the demand for it would increase; and only in proportion with the demand can the work progress. It is the duty and privilege of public educators to proclaim it abroad, to arouse interest, to give support, and to provide a place for it in the school curriculum.

Supt. Eli M. Rapp, of Berks, said that he is especially interested in the agricultural end of industrial work. He has been doing much experimental work with boys' clubs in his county—1,500 of his boys and girls working in ways to get results. Of his 550 teachers 250 are men who are farmer-teachers. In his county 110 have gone from teaching to the farm within the past few years. He knows also of six preachers and two lawyers who have been equally wise. Let enrichment come to the teacher and from the teacher. The normal schools are getting better—in amplifying their work. They may in time be prepared to send out teachers who can teach something of farming, and arouse in the minds of their pupils in the country schools an earnest interest in the life and work of the farm. A few days ago I suggested a special teacher in agriculture for several school districts, at a good salary, who should be on duty for twelve months in the year. We need these specially trained teachers. In the fall I have a miniature county fair, with prizes for the winners in the contests in raising corn, in bread-baking, in sewing, etc. In one district the yield of corn has been increased to 70 and 80 bushels to the acre through the care given to the selection of seed corn by the teachers and pupils in the schools, and to its better cultivation in the field. Of course, in such a locality the farmers rally to the support of the school. We have done much also to interest pupils in the planting of flowers about their homes and vegetables in the home garden. From the "Flower Mission" they get seeds at little cost—and have education of the best sort in planting these and caring for the beautiful and wonderful things that spring from them.

Dr. Connelly, Superintendent of the Carnegie Manual Training School, spoke for Pittsburgh, in reply to what had been said by Mr. Cruikshank. During the past three years there have been ten manual training schools in that city. It is in the lead, not second to any, in this great work. More money has been expended in this direction in the Iron City than anywhere else in the United States or in the world. The Carnegie School teaches seven branches. For "continuation schools" Pittsburgh is the best place in the world.

Mr. Cruikshank was glad that Mr. Connelly had said what he did. He had been misinformed as to Pittsburgh.

President Herrick, of Girard College, regards Pennsylvania as the state of most diversified industries, and we ought to be in the front rank in industrial education. We are fortunate in our geographical position, while our productive soil and vast mineral deposits give us supreme advantage. It is our endowment from nature. But we are exhausting these resources and are losing heavily by it. If we are to hold our place in the front rank of the States we must train our people to greater skill and broader knowledge. In this matter of manual training, by the way, we have too much of a snarl of terminology. We talk of industrial arts, manual, industrial agricultural training, etc., until I feel all tangled up by the variety of terms in use. Do we know just what we mean when one or another of these terms is used? And if not, it is not possible to have definite knowledge? Cannot something be done by this department towards greater clearness in the terminology used in speaking of manual training and the manual training schools?

After some discussion a committee of three, consisting of Supt. H. H. Baish, Altoona, Dr. Cheesman A. Herrick, Philadelphia, and Miss Della G. Sturgeon, Erie, were named to report upon this matter at the next meeting of the department.

The Chairman called attention to some work that Miss Prouty, of the Millersville Normal School, had brought with her, and asked her to speak of it. She showed some attractive little baskets and pretty picture frames, all made from native material. Corn husks, rye straw, swamp grass, etc., may all be used in basketry. Country children are always pleased to bring the needed materials, and their cost is nothing, which cannot be said of raffia.

At the close of the meeting, the officers of the past year, Prof. Bert M. LeSuer and Miss Iris Prouty were again placed in nomination as President and Secretary, and elected by acclamation.

Before the motion for adjournment was made an invitation was given to all who were interested and could find time for it, to visit the Brewster Industrial School where a showing of pupils' work had been arranged for exhibition.

MEMBERS ENROLLED.

ADAMS—2.

H. Milton Roth,* Gettysburg.
Daniel Rupp,[3] New Oxford.

ALLEGHENY—338.

Samuel Hamilton,* Braddock.
Samuel Andrews,* Pittsburgh.
John Morrow,* Allegheny, Box 77.
Mary P. Lang,[1] Allegheny.
Helen Livingston,[1] Allegheny.
George W. Gerwig,[6] Allegheny.
W. C. Graham,[2] Wilkinsburg.
Grant Norris,* Braddock.
James M. Norris,* Homestead.
A. D. Endsley,* Tarentum.
J. L. Spitler,[2] Braddock.
James L. Allison,* Wilkinsburg.
Mary J. Dougherty,[1] Pittsburgh.
W. E. Borger,[2] Sewickley.
Charles Glatzert,[1] Sewickley.
George E. Mark,[1] Sewickley.
Blanche McAuley,[1] Sewickley.
L. M. Wakeham,[1] Sewickley.
Annie M. Graham,[1] Sewickley.
Mary McClymonds,[1] Sewickley.
Mrs. Rhoda Peterson,[1] Sewickley.
Adah R. McClintock,[1] Carrick.
S. S. Baker,[2] Pittsburgh.
Edward Rynearson,[6] Pittsburgh.
A. L. Hope,[2] Pittsburgh.
Lida J. Henderson,[1] Pittsburgh.
C. G. Cleaver, Pittsburgh.
Pittsburgh Teachers' Association.‡
W. L. Smith,[2] Allegheny.
Frances J. Laroa,[1] Allegheny.
Elizabeth McCreery,[1] Allegheny.
Harry M. Ferren,[1] Allegheny.
James R. Coleman,[1] Allegheny.
George W. Walker,[1] Allegheny.
Emma Leitman,[1] Allegheny.
Christian Alberti,[1] Allegheny.
Effie MacMillan,[1] Allegheny.
Helen MacMillan,[1] Allegheny.
George B. Snyder,[1] Pittsburgh.
Michael G. Snyder,[1] Allegheny.
William Breitwieser,[1] Allegheny.
V. S. Beachley,[1] Allegheny.
Hugh L. Porter,[1] Allegheny.
C. A. Medlock,[1] Allegheny.
Katherine J. Mechling,[1] Allegheny.
Irene E. McDermott,[1] Allegeheny.
Irene F. Donahey,[1] Allegheny.
William T. Markey,[1] Allegheny.
Grace E. Marrett,[1] Allegheny.
William H. Atha,[1] Allegheny.
Ella Hazlewood,[1] Allegheny.
F. T. McClure,[1] Allegheny.
Mabel Leslie,[1] Pittsburgh.
Grace M. Grimm,[1] Pittsburgh.
Ida A. Lockhart,[1] Pittsburgh.
Alice Staib,[1] Wilkinsburg.
Edna F. Bailey,[1] Wilkinsburg.
Alice Henry,[1] Pittsburgh.
M. E. Van Wagonen,[3] Pittsburgh.
Jennie Johnston,[1] Pittsburgh.
John J. Coll,[2] Pittsburgh.
Mary Brehler,[1] Pittsburgh.
W. C. Clearenger,[2] Pittsburgh.
Kate W. Cozadd,[1] Pittsburgh.
Beth R. Ward,[1] Pittsburgh.
F. Lulu Findley,[1] Pittsburgh.
Anna Bamford,[1] Pittsburgh.
Corrine Bingham,[1]
Daniel J. Broderick,[2] Pittsburgh.
Ruth McClintock,[1] Buena Vista.
Grace K. Cameron,[1] Allegheny.
Mary E. Herdman,[1] Allegheny.
Mary McIntyre,[1] McKeesport.
John W. Anthony,[2] Pittsburgh.
Edward Maguire,[2] Swissvale.
J. M. Berkey,[2] Pittsburgh.
Harry M. Shafer,[1] Pittsburgh.
E. H. Knoch,[2] Clairton.
Mary E. McCall,[1] Pittsburgh.
Louisa D. Seif,[1] Pittsburgh.
Rose G. Davis,[1] Pittsburgh.
Kate Neumont,[1] Pittsburgh.
Margaret A. Spencer,[1] Pittsburgh.
Mrs. Margaret J. Clark,[1] Pittsburgh.
H. E. Winner,[2] Pittsburgh.
Margaret Clancy,[1] Pittsburgh.
Flo. B. Scroggs,[1] Pittsburgh.
Agnes C. McIntyre,[1] Wilkinsburg.
Georgia E. Lowry,[1] Wilkinsburg.
Anna M. Robinson,[1] Wilkinsburg.
M. Rosetta Conover,[1] Wilkinsburg.
Annette Dyess,[1] Wilkinsburg.
Sara C. Siebert,[1] Wilkinsburg.
Mary K. Price,[1] Wilkinsburg.
Nannie F. Emver,[1] Wilkinsburg.
Ida M. Bean,[1] Wilkinsburg.
Sadie J. Whitten,[1] Wilkinsburg.
Letitia E. Jackson,[1] Pittsburgh.
Mary H. Speer,[1] Pittsburgh.
Beatrice M. Taylor,[1] Pittsburgh.
Edith Shearer,[1] Pittsburgh.
Annie Owen,[1] Pittsburgh.
Maud E. Hess,[1] Pittsburgh.
Eleanor A. Morrow,[1] Allegheny.
John T. Morris,[1] Pittsburgh.
F. L. Homer,[1] Pittsburgh.
W. P. Stewart,[1] Verona.
J. H. Eisenhauer,[1] McKeesport.
Adda Martin,[1] Allegheny.
Jane Mathews,[1] Allegheny.
D. S. Sweeney, Pittsburgh.
F. W. Squibb,[2] McKeesport.
E. F. Loucks,[1] Braddock.
W. Espey Albig,[2] Bellevue.
Minnie E. Smith,[1] Pittsburgh.
William W. Keller, Pittsburgh.
S. M. Kanaga,[1] Wilkinsburg.
Catherine F. Reel,[1] Pittsburgh.
Belle S. McMillan,[1] Pittsburgh.
H. P. McMichael,[2] McKeesport.
Madge DeHaven,[1] Pittsburgh.
Mary F. McNess,[1] Aspinwall.
Catherine Marin,[1] Allegheny.
W. G. Chambers,[1] Pittsburgh.
Alice N. Parker,[2] Pittsburgh.
Miriam Duffy,[1] Avalon.
H. J. Stockton,[1] McKeesport.
W. A. Hinchman,[4] McKeesport.
C. B. Connelley,[2] Pittsburgh.
J. A. Hollinger,[2] Pittsburgh.

The following named are teaching in the boroughs under which they are enrolled.

Braddock.

Irene Pratt,[1] Pittsburgh.
Mame E. Clark,[1] Wilkinsburg.
Jeanette Koesel,[1] Wilkinsburg.
Maude N. Fellenbaum,[1] Hays.
Nannie Yarlett,[1] Braddock.
Zelma Lotsman,[1] Braddock.
Sara Patch,[2] Braddock.
Sarah Walton,[1] Braddock.
Bessie Rugh,[1] Pitcairn.
Nellie F. Gorsuch,[1] Braddock.
Margaret McClain,[1] Braddock.
Corel Spires,[1] Turtle Creek.
Agnes G. Creig,[1] Braddock.
Bessie Stroup,[1] Braddock.
Emma Gardner,[1] Braddock.
Dellie M. Steinmetz,[2] Braddock.
Mary G. Chisholm,[1] Clinton.
Margaret F. Scott,[1] Pittsburgh.
Emma B. Means,[1] Elizabeth.
Elizabeth Malone,[1] Port Perry.
Edith F. Morgan,[1] Braddock.
Perna M. Marsellan,[1] Braddock.
Anna M. Orr,[1] Braddock.
Grace A. Carr,[1] Braddock.
Martha B. Horrocks,[1] Wilmerding.
Sadie E. Bates,[1] Braddock.
Lois Musselman,[1] Braddock.
Mary J. Marshall,[1] Pittsburgh.
Mayme McCully,[1] Braddock.
Ruth Carruthers,[1] Braddock.
Alice R. M. Phillips,[1] Braddock.
Ella M. Clark,[1] Swissvale.
Jennie Flenniken,[1] McKeesport.
Harriett W. Jack,[2] Zanesville, Ohio.
Eva M. Canan,[1] Braddock.
May Ralston,[1] Wilkinsburg.
M. E. Higgins,[1] McKeesport.
Minnie A. Holland,[1] Braddock.
Jessie Swaney,[1] Braddock.
Anna M. Hyslop,[1] Braddock.

Brackenridge.

Myrtle Shields,[1] Baxter.
Lillie A. Elliott,[1] Brackenridge.
Venetta J. Travis,[2] Tarentum.

North Braddock.

Mary Purdy,[1] Sewickley.
Minnie F. Jones,[1] Duquesne.
Mary L. Campbell,[1] West Newton.
Inez A. McDonald,[1] Braddock.
Ethel Christenson,[1] Braddock.
Catherine Coleman,[1] Braddock.
Vera M. Hurrell,[1] Braddock.
Josephine H. Gordon,[1] Braddock.
Elizabeth B. Grove,[1] Wilkinsburg.
Caroline Johnston,[1] Braddock.
Erma Davis,[1] Braddock.
Lillie Williams,[1] Braddock.
Jennie S. Lapsley,[1] Braddock.
Berniece Campbell,[1] Petrolia.
Stella N. Marks,[1] Braddock.
Marion Couperthwaite,[1] Windber.
Bertha A. Stewart,[1] Baden.
Edna I. Long,[1] Braddock.
Josephine Witfer,[1] Braddock.
Margaret Stephens,[1] Pine Flatts.
Isabel White,[1] McKeesport.
Alice B. Cogley,[1] Shirleysburg.
Jennie E. Coe,[1] Tarentum.
Sara Marshall,[1] Wilkinsburg.
Bess B. Wiley,[1] Braddock.
Margaret Morgan,[1] Braddock.
Mary I. Bell,[1] Braddock.
Sara B. Morrison,[1] Wilkinsburg.
Caroline Fellenbaum,[1] Braddock.
Florence Pryde,[1] Braddock.

Chartiers Township.

Elodie G. Carlin,[2] Crafton.
Ella J. Arnold,[1] Shenanga.
Gertrude Kauffman,[1] Butler.
Ella Elliott,[1] Crafton.
Mercedes Reed,[1] Pittsburgh.
Nell Bard,[1] Slippery Rock.
Blanche Forrester,[1] Prospect.

* Superintendent. ‡ Life member. [1] Teacher. [2] Principal. [3] Supervisor. [4] Inspector. [5] Normal School. [6] Director.

Carnegie.
W. S. Bryan,[2] Carnegie.
Elizabeth Kelley,[1] Carnegie.
Ruth Ella Dennis,[1] Carnegie.
Anna L. Kelso,[1] Carnegie.
East McKeesport.
Blanche Stucki,[1] McKeesport.
Elizabeth Moore,[1] East McKeesport.
Edgeworth.
Earle D. Bruner,[2] Sewickley.
Mary Ross,[1] Ingram.
Mary Evans,[1] Beechview.
Anna Nicklas,[1] Sewickley.
Helen Hoak,[1] Sewickley.
Viola McCann,[1] Pittsburgh.
Adda Sheets,[1] Baden.
Etna.
J. Q. A. Irvine,[2] Etna.
Ida M. Ingersoll,[1] Sharpsburgh.
Ella M. Ritts,[1] Etna.
Marion Lambie,[1] Etna.
Henrietta Irvine,[1] Etna.
Cecelia Buehler,[1] Etna.
Henrietta Homeier,[1] Etna.
Ida Weber,[1] Sharpsburgh.
Christina Yahres,[1] Etna.
Frances Smith,[1] Etna.
Clara Beyerly,[1] Etna.
Amelia Egli,[1] Etna.
Ida Jones,[1] Etna.
Matilda Dickson,[1] Sharpsburgh.
Anna Nixon,[1] Etna.
Glenfield.
Adda M. Purdy,[2] Pittsburgh.
Leetsdale.
H. H. Poole,[2] Leetsdale.
Emelia T. Feucht,[1] Leetsdale.
Maude Seaman,[1] Leetsdale.
McKee's Rocks.
F. H. Powers,* McKee's Rocks.
J. E. McKown,[1] R. D. 1, Coraopolis.
Sophie Ahrend,[1] Pittsburgh.
Tirsah Young,[1] McKee's Rocks.
Benja F. Lepley,[1] McKee's Rocks.
Rachal Cannell,[1] Pittsburgh.
Nora W. Yolton,[1] Coraopolis.
Munhall.
L. F. Lutton,[2] Munhall.
D. H. Bauman,[1] Mance.
M. H. Borland,[1] Washington.
Chas. McDonough,[1] Claysville.
Stella Young,[1] Munhall.
Mattie Glasgow,[1] McKeesport.
Mary C. Richards,[1] Scheelsberg.
Anna P. Wilkins,[1] California.
LeMira McCleery,[1] Munhall.
Sarah Smith,[1] Huntingdon.
Zula Z. Himes,[1] Clarion.
Anna Lewis,[1] Turtle Creek.
Blanche McBride,[1] Braddock.
Nell Allen,[1] Coal Valley.
Lottie McClerry,[1] Munhall.
Josephine Steinmetz,[1] Braddock.
Anna Howell,[1] Munhall.
Anna Johnson,[1] Pittsburgh.
Evalyn James,[1] Munhall.
Natrona.
M. C. Harner,[2] Natrona.
Hilda Larson,[1] Natrona.
Myrtle McCafferty,[1] Sarver.
Pitcairn.
Grace Good,[1] Pitcairn.
Sue Bryar,[1] Pittsburgh.
Florence Jones,[1] Trafford City.
Mabel Bracken,[1] Manor.
Bertha Magnus,[1] Wilkinsburg.
Laura Swisshelm,[1] Wilkinsburg.
Effie Dean,[1] Pitcairn.
Elizabeth Boehme,[1] Pitcairn.
Esther Fletcher,[1] Everett.
Swissvale.
Mary B. Colestock,[1] Greensburg.
Caroline H. Hall,[1] Pittsburgh.
Anna Hazlett, Wilkinsburg.
Florence Hill,[1] Leechburg.
Maude McClelland,[1] McKeesport.
Dora McCorkle,[1] Swissvale.
Frances Snyder,[1] Utica.
Margaret Thomson,[1] Pittsburgh.
Mary L. Weibel,[1] Swissvale.
Tarentum.
Myzie McKean,[1] Parnassus.
Helen McCracken,[1] Markle.
Belle Dugan,[1] Tarentum.
Caroline Ready,[1] Tarentum.
Florence Luty,[1] Hites.
Laura Adams,[1] Kittanning.
Laura A. Thompson,[1] Tarentum.
Elizabeth Mahaffey,[1] Tarentum.
Mima Milliron,[1] Euclid.
W. A. Rodgers,[1] Turtle Creek.
Turtle Creek.
Jean Fitzgerald,[1] Apollo.
Jane Holliday,[1] Turtle Creek.
Laura McGranahan,[1] Turtle Creek.
Myra Stewart,[1] Turtle Creek.
Belle Dibler,[1] Turtle Creek.
Emma Keister,[1] Turtle Creek.
Delia Stover,[1] Ingram.
H. W. Goodwin,[2] Turtle Creek.
Anna E. Rinehart,[1] Turtle Creek.
Laura E. Bethune,[1] Turtle Creek.
W. W. Smith,[1] Turtle Creek.
Wilkinsburg.
Jean H. Donaldson,[1] Wilkinsburg.
Bell Keys,[1] Brockwayville.
Mary A. Gregg,[1] Pittsburgh.
Inez M. Stewart,[1] Wilkinsburg.
Sara E. Reagle,[1] Franklin.
Mildred Kennedy,[1] Wilkinsburg.
M. Wilda Uncapher,[1] Wilkinsburg.
Sara McIntosh,[1] Wilkinsburg.
Lottie M. Harrison,[1] Wilkinsburg.
Sara M. Ferguson,[1] Wilkinsburg.
Elizabeth Day,[1] Wilkinsburg.
Wilda Schweitering,[1] Oakmont.
Mrs. Agnes Lysinger,[1] Pittsburg.
Enid Wolsey,[1] Pittsburgh.
Mary H. Gibson,[1] Wilkinsburg.
Corrine Johnston,[1] Foxburg.
Ellen Whitten,[1] Wilkinsburg.
Ida May,[1] Wilkinsburg.
Blanche J. Thornton,[2] Pittsburgh.
Nell Maxwell,[1] Wilkinsburg.
Lillie Ray,[1] Wilkinsburg.
Lou Robinson,[1] Doylestown.
Lo E. Anthony,[1] Indiana.
Olive M. Cribbs,[1] Clarion.
Mrs. E. J. Sloan,[1] Wilkinsburg.
Margaret J. Miller,[1] Wilkinsburg.
Florence B. Porter,[1] Wilkinsburg.
Iantha D. Keefer,[1] Wilkinsburg.

ARMSTRONG—25.

W. A. Patton,* Kittanning.
Louise McCurdy,[1] Freeport.
F. W. Goodwin,* Kittanning.
W. W. Irwin,[2] Ford City.
M. A. Milliron, Kittanning.
Gertrude Kendig,[1] Ford City.
Anna White,[1] Ford City.
W. R. Steele,[1] Apollo.
Luella Murphy,[1] Kittanning.
Carrie Adams,[1] Slate Lick.
Margaret Weaver,[1] Worthington.
Bessie Hudson,[1] Freeport.
Bertha Rimer,[1] Sagamore.
Florence Goodheart,[1] Dayton.
Margaret Laird,[1] Ford City.
Laura Pontious,[1] Dayton.
H. H. Elliott,[2] Freeport.
Ella Snader,[1] Freeport.
Bertha Harbison,[1] Freeport.
Gertrude Cowan,[1] Freeport.
Emma Lowther,[1] Freeport.
Mary Ammond,[1] Ford City.
May Claypole,[1] Cochran Mills.
A. W. Rodgers,[2] Apollo.
J. L. Hazlett,[2] Worthington.

BEAVER—10.

David C. Locke,* Monaca.
Clyde C. Green,* New Brighton.
Bertha DeVenny,[1] New Brighton.
Harriet Latshaw,[1] New Brighton.
Adelaide Latshaw,[1] New Brighton.
Alice Boots,[1] New Brighton.
Mabel Hawthorn,[1] New Brighton.
Margaret Bell,[1] New Brighton.
Juliet Dunham,[1] New Brighton.
Margaret Lowery, New Brighton.

BEDFORD—1.

K. J. Grimm,[1] Manns Choice.

BERKS—107.

Eli M. Rapp,* Reading.
Charles S. Foos,* Reading.
A. C. Rothermel,[5] Kutztown.
H. W. Sharadin,[1] Kutztown.
Emily M. Goas,[1] Reading.
Geneva L. Harper,[1] Reading.
Florence A. Hoskin,[1] Reading.
Sue S. Umbenhauer,[1] Reading.
Jessie F. Hughes,[1] Reading.
Nettie V. Hughes,[1] Reading.
Ada W. Ribble,[1] Reading.
Martha S. Bower,[1] Reading.
Sara E. Townsend,[1] Reading.
Clara J. Kissinger,[1] Reading.
A. J. Wobensmith,[1] Reading.
Amanda E. Stout,[3] Reading.
George M. Jones,[1] Reading.
Anna A. R. Seiders,[1] Reading.
Araminta B. Richards,[3] Reading.
Lillie M. Geiger,[1] Reading.
Stella M. Laird,[1] Reading.
Kate E. Barton,[1] Reading.
Amelia S. Miller,[1] Reading.
Florence B. DeHarte,[1] Reading.
Rebecca Worley,[1] Reading.
Lillie K. Winter,[1] Reading.
Mary Evans Jones,[1] Reading.
Minta Fulton,[1] Reading.
Lillian L. Drake,[1] Reading.
Clara M. Wonnberger,[1] Reading.
H. Katherine Eiche,[1] Reading.
Mary S. Addams,[3] Reading.
Elizabeth E. Jones,[1] Reading.
Winifred Berger,[1] Reading.
Carrie A. Hull,[1] Reading.
Zettan Gordon,[1] Reading.
Caroline E. Rees,[1] Reading.
Millie Rhein,[1] Reading.
Lillie F. Bech,[1] Reading.
Bertha Acker,[1] Reading.
Louise Werner,[1] Reading.
Dora E. Wanner,[1] Reading.
Lydia M. Wanner,[1] Reading.
Anna A. Rapp,[1] Reading.
Hannah S. Mohr,[1] Reading.
Rhea E. Ege,[1] Reading.
Constance Paine,[1] Reading.
Lotte Ph. Gehrke,[1] Reading.
Levi W. Mangel,[1] Reading.
Kate M. Knapp,[1] Reading.
Minnie A. Yeich,[1] Reading.
Blanche Lewis,[1] Reading.
Emilie C. Heller,[1] Reading.
Sallie C. Morris,[1] Reading.
Sallie A. Green,[1] Reading.
Annie S. Snyder,[1] Reading.
Margaret M. Wagner,[1] Reading.
Rosa McConnel,[1] Reading.
Mary M. Ribble,[1] Reading.
Maggie L. Howell,[1] Reading.
Elizabeth Hutchinson,[1] Reading.
Rose Albright,[1] Reading.
Rebecca Albright,[1] Reading.
Beulah L. Holloway,[1] Reading.
Lillie V. Schœner,[3] Reading.
Emma H. Howe,[1] Reading.
Sadie E. Shultz,[1] Reading.
Florence L. Ziegler,[1] Reading.
Catharine I. Young,[1] Reading.
Bessie M. Mason,[1] Reading.
Agnes S. DeHart,[1] Reading.
Mary E. Biehl,[1] Reading.
Margaret I. Kantner,[1] Reading.
Margaret M. Herner,[1] Reading.
Margaret M. Gossler,[1] Reading.
Jennie B. George,[1] Reading.
Nora Snyder,[1] Reading.
M. Virginia Shaaber,[1] Reading.
Ida R. Kirn,[1] Reading.
Amanda DeH. Woodward,[1] Reading.
Helene K. Sembower,[1] Reading.
Martha A. Schmehl,[1] Reading.
Esther O. Schmehl,[1] Reading.
Helen Custer,[1] Reading.
Mary M. Rowe,[1] Reading.
Elizabeth J. Levan,[1] Reading.
Mary M. Rice,[1] Reading.
Loretta C. Reiley,[1] Reading.
Elizabeth Edwards,[1] Reading.
Margaretta Davies,[1] Reading.
Elsie C. Rote,[1] Reading.
Franklin G. Dietrich,[1] Reading.
Mary J. Murray,[1] Reading.
Anna N. Levan,[1] Reading.
Estella Reider,[1] Reading.
Anna S. York,[1] Reading.
Carrie M. Troxell,[1] Reading.
Meta Orff,[1] Reading.
Daisy B. Keim,[1] Reading.
Lillian E. Johnson,[5] Kutztown.

Charles C. Boyer,[5] Kutztown.
W. W. Deatrick,[5] Kutztown.
David S. Keck,[‡5] Kutztown.
Jeremiah M. Hoffman,[‡] Reading.
S. H. Ziegler,[1] Reading.
Bert M. LeSuer,[1] Reading.
L. W. Cruikshank,[1] Reading.

BLAIR—24.

T. S. Davis,* Altoona.
H. S. Fleck,* Tyrone.
H. H. Baish,* Altoona.
P. Kreuzpointner,[1] Altoona.
Geo. D. Robb,[2] Altoona.
L. D. Talbot,[1] Altoona.
J. A. Stewart,[1] Altoona.
A. M. Longenecker,[1] Altoona.
Linda Hooper,[1] Altoona.
Minnie Stockton,[1] Altoona.
Mary V. Turner,[1] Altoona.
Marie Lentz,[1] Altoona.
Mary Clarkson,[1] Altoona.
Helen Rickabaugh,[1] Altoona.
Jessie McFarland,[1] Altoona.
Irma Lewis,[1] Altoona.
Jessie F. Davis,[1] Altoona.
Ella G. Burley,[1] Altoona.
G. B. Williams,[1] Altoona.
Jennie Brennecke,[1] Altoona.
Mabel E. Mulock,[1] Altoona.
Mabel Wiley,[1] Hollidaysburg.
Roland O. Lytle,[1] Arch Springs.
Mrs. Roland O. Lytle,[1] Arch Springs.

BRADFORD—2.

Herbert S. Putnam,* Towanda.
George E. Rogers,[2] Athens.

BUCKS—2.

J. H. Hoffman,* Doylestown.
Edwin W. Smiley,[2] Chalfont.

BUTLER—3.

Jno. A. Gibson,* Butler.
Nina Humphrey,[1] Portersville.
Rose E. McNees,[1] Butler.

CAMBRIA—4.

Herman T. Jones,* Ebensburg.
James N. Muir,* Johnstown.
J. E. Hershberger,[2] Conemaugh.
Sarah M. Gallaher,[2] Ebensburg.

CAMERON—3.

Mattie M. Collins,* Emporium.
C. E. Plasterer,[2] Emporium.
Marian E. Larrabee,[1] Emporium.

CARBON—3.

James J. Bevan,* Mauch Chunk.
W. E. Bevan,[2] Mauch Chunk.
C. E. Cole,[1] Palmerton.

CHESTER—9.

G. W. Moore,* Ercildoun.
Addison L. Jones,* West Chester.
R. E. Laramy,* Phœnixville.
Thomas A. Bock,[2] Spring City.
George M. Philips,[‡5] West Chester.
H. D. Robbins,[2] Phœnixville.
Norman W. Cameron,[5] West Chester.
F. S. Wooson,[2] Kennett Square.
Oren J. Barnes,[2] West Chester.

CENTRE—4.

David O. Etters,* State College.
Edwin E. Sparks,[2] State College.
J. P. Welsh,[‡5] State College.
Thomas P. Mairs,[1] State College.

CLARION—2.

N. E. Heeter,* Clarion.
J. George Becht,[5] Clarion.

CLEARFIELD—5.

W. E. Tobias,* Clearfield.
J. H. Alleman,* Du Bois.
L. F. Benchoff,* Clearfield.
W. W. Eisenhart,[3] Morr'dale Mines.
J. B. Geissinger,[2] Du Bois.

CLINTON—9.

Ira N. McCloskey,* Lock Haven.
J. R. Flickinger,[5] Lock Haven.
C. M. Mapes,[1] Beech Creek.
Edward S. Ling,* Lock Haven.
George A. Mincemoyer,[3] Renovo.
J. A. Young,[2] Lock Haven.
Lillian Adams,[1] Lock Haven.
Julia McCabe,[1] Lock Haven.
Christine Heberstroh,[1] Lock Haven.

COLUMBIA—3.

W. W. Evans,* Bloomsburg.
J. Howard Smith, Berwick.
Lawrence W. Cover,[3] Aristes.

CRAWFORD—10.

John D. Goodwin,* Meadville.
R. H. Bellows,* Meadville.
Henry Pease,* Titusville.
M. J. Miller,[1] Coneaut Lake.
Grace Mullian,[1] Westford.
W. D. Lewis,[2] Meadville.
Gladys Maloney,[1] Meadville.
Dalton P. Blair,[2] Cambridge Springs.
H. E. Stone,[1] Meadville.
P. D. Blair, Cambridge Springs.

CUMBERLAND—11.

J. Kelso Green,* Carlisle.
John C. Wagner,* Carlisle.
J. W. Potter,[1] Carlisle.
T. L. Brooks,[1] Carlisle.
C. M. Kast,[1] Mechanicsburg.
Helen Kast,[1] Mechanicsburg.
J. F. Newman,[5] Shippensburg.
E. W. Harvey, Camp Hill.
S. C. Beitzel,[2] Mechanicsburg.
W. G. Rice,[1] Camp Hill.
Mrs. Maud Keat,[1] Carlisle.

DAUPHIN—225.

H. V. B. Garver,* Middletown.
F. E. Downes,* Harrisburg.
L. E. McGinnes,* Steelton.
Nathan C. Schaeffer, Harrisburg.
Reed B. Teitrick, Harrisburg.
A. D. Glenn, Harrisburg.
R. M. McNeal, Harrisburg.
Anna Sandoe,[2] Harrisburg.
A. May Tittle,[1] Harrisburg.
Renee Flender,[1] Harrisburg.
Lile George,[2] Harrisburg.
Mabel E. Vaugn,[1] Harrisburg.
Mary G. Edwards,[2] Harrisburg.
Lizzie F. Jauss,[1] Harrisburg.
Helen M. Jauss,[1] Harrisburg.
Elizabeth Strickland,[1] Harrisburg.
Martin S. Taylor,[2] Harrisburg.
Alice Witherow,[1] Harrisburg.
Margaret Madden,[1] Harrisburg.
A. K. Laurie,[1] Harrisburg.
A. J. Bernhardt,[1] Harrisburg.
Emma F. Beatty,[1] Harrisburg.
Mabel A. Charles,[1] Harrisburg.
S. P. Stambaugh,[2] Harrisburg.
Alberta Zimmerman,[1] Harrisburg.
S. E. Adams,[1] Harrisburg.
Anna Marshbank,[2] Harrisburg.
Katherine McFarland,[1] Harrisburg.
Alberta Skane,[1] Harrisburg.
E. J. Adams,[2] Harrisburg.
Mary E. Gotta,[1] Harrisburg.
Genevra Fritchey,[1] Harrisburg.
Miss L. Fritchey,[1] Harrisburg.
Catharine A. Burd,[1] Harrisburg.
Amanda L. Crowe,[2] Harrisburg.
Agnes Schlick,[1] Harrisburg.
Laura M. Sloat,[1] Harrisburg.
Elizabeth A. Dum,[1] Harrisburg.
Estella Ebner,[1] Harrisburg.
Serena C. Knabe,[1] Harrisburg.
Margaret M. Funk,[1] Harrisburg.
Florence M. English,[1] Harrisburg.
Maude McElwaine,[1] Harrisburg.
Isabella Griffith,[1] Harrisburg.
Caroline M. Baskin,[1] Harrisburg.
J. B. Odell,[2] Harrisburg.
Hattie F. Wolfe,[1] Harrisburg.
Gertrude Huber,[1] Harrisburg.
Mabel March,[1] Harrisburg.
Sue H. Sparrow,[1] Harrisburg.
Katherine Huber,[1] Harrisburg.
Rena Blumenstein,[1] Harrisburg.
Mrs. Edna F. Mann,[1] Harrisburg.
Genevieve Burns,[1] Harrisburg.
Mary H. Pendergast,[1] Harrisburg.
Irene Loomis,[1] Harrisburg.
Mary Warlow,[1] Harrisburg.
Bertha Berthel,[1] Harrisburg.
Carrie L. Faries,[1] Harrisburg.
Clara Lutz,[1] Harrisburg.
Grace M. Wonders,[1] Harrisburg.
Flora M. Bentzel,[1] Harrisburg.
Lottie Haehnlen,[1] Harrisburg.
Emily Kepple,[1] Harrisburg.
Helen Schearer,[1] Harrisburg.
C. F. Martz,[2] Harrisburg.
Mrs. Kate M. Piper,[1] Harrisburg.
George S. Machen,[2] Harrisburg.
Mary Frantz,[1] Harrisburg.
Rebecca Orth,[1] Harrisburg.
Marg. M. Sullivan,[1] Harrisburg.
Jessie R. Hartman,[1] Harrisburg.
Anna M. Swope,[1] Harrisburg.
Mabel Meckley,[1] Harrisburg.
Marg. Burns,[1] Harrisburg.
Lillie Pentz,[1] Harrisburg.
Helen Krall,[1] Harrisburg.
Minnie Kreider,[1] Harrisburg.
M. H. Thomas,[2] Harrisburg.
Iva C. Weirick,[1] Harrisburg.
Grace Laucks,[1] Harrisbrug.
Marie Sample,[1] Harrisburg.
Mary Reed,[1] Harrisburg.
P. L. Hocker,[2] Harrisburg.
Mary E. Hertzler,[1] Harrisburg.
Alva M. Grunden,[1] Paxtang.
Iada M. Kauffman,[1] Harrisburg.
Caroline Sparrow,[1] Harrisburg.
Grace Eisenhower,[1] Harrisburg.
Naomi P. Bair,[1] Harrisburg.
Stella M. Grimm,[1] Harrisburg.
Elsie L. Butler,[1] Harrisburg.
Caroline Patterson,[1] Harrisburg.
Edith Bentzel,[1] Harrisburg.
Ruth Wells,[1] Harrisburg.
Clara Fisher,[1] Harrisburg.
Lillian Fitzimons,[1] Harrisburg.
Anne Watson,[1] Harrisburg.
Laura Garman,[1] Harrisburg.
Elizabeth Fahnestock,[1] Harrisburg.
Sue M. Bratten,[1] Harrisburg.
Anne U. Wert,[1] Harrisburg.
W. H. Jacobs,[2] Harrisburg.
Kathryn Harfleigh,[1] Harrisburg.
Mrs. Abigail Lamond,[1] Harrisburg.
Fannie Johnson,[2] Harrisburg.
Virginia Hoagland,[1] Harrisburg.
Minnie Sample,[1] Harrisburg.
Annie C. Schlayer,[1] Harrisburg.
Mary Mickey,[2] Harrisburg.
Marie C. Higgins,[1] Harrisburg.
William H. Marshall,[2] Harrisburg.
Minnie K. McConnell,[1] Harrisburg.
W. C. Heiges,[2] Harrisburg.
Zella H. Book,[1] Harrisburg.
Clara L. Meredith,[2] Harrisburg.
Florence Mackenson,[1] Harrisburg.
Grace McLaughlin,[1] Harrisburg.
Myra Connelly,[1] Harrisburg.
W. E. Kirk,[2] Harrisburg.
Mary M. Markell,[1] Harrisburg.
Jennie F. Mitchell,[1] Harrisburg.
Bertha I. Spong,[1] Harrisburg.
Phoebe Robison,[1] Harrisburg.
Catharine Eichinger,[1] Harrisburg.
Elizabeth Baker,[1] Harrisburg.
Jane Dibler,[1] Harrisburg.
M. S. Hepford,[1] Harrisburg.
Helen H. Jackson,[1] Harrisburg.
Maud Robertson,[1] Harrisburg.
Julia Ryan,[1] Harrisburg.
Elizabeth Tittle,[1] Harrisburg.
Iola E. Urich,[1] Harrisburg.
Emma Coleman,[1] Harrisburg.
Anne V. Crowl,[2] Harrisburg.
Nettie Moyer,[1] Harrisburg.
John P. Scott,[1] Harrisburg.
J. Henry Williams,[1] Harrisburg.
Mary Berrier,[1] Harrisburg.
Anna M. Bender,[1] Harrisburg.
Elizabeth Goldsmith,[1] Harrisburg.
Gertrude Hoffman,[1] Harrisburg.
Jennie B. Lutz,[1] Harrisburg.
Alice C. McGowan,[1] Harrisburg.
Mary M. Vollmer,[2] Harrisburg.
Homozellah Burruss,[1] Harrisburg.
M. H. Layton,[2] Harrisburg.
Helen Taylor,[1] Harrisburg.
Ida Brown,[1] Harrisburg.
Clara Reed,[1] Harrisburg.
Mary E. Rynard,[2] Harrisburg.
Ida M. Stewart,[1] Harrisburg.
Clara S. Shireman,[1] Harrisburg.
Lois Booker,[1] Harrisburg.
Jennie E. Dase,[1] Harrisburg.
L. LaVene Grove,[1] Harrisburg.
Helen Laucks,[1] Harrisburg

Josephine R. Koser,[1] Harrisburg.
Blanche Meloy,[1] Harrisburg.
Alice Nelson,[1] Harrisburg.
Alice Ryan,[1] Harrisburg.
Edith M. Walmer,[1] Harrisburg.
Liliah B. Zug,[1] Harrisburg.
Mary Rodgers,[1] Harrisburg.
Mary Skane,[1] Harrisburg.
L. S. Shimmell,[3] Harrisburg.
H. J. Wickey,* Middletown.
J. J. Brehm,[3] Harrisburg.
George B. Colestock, Harrisburg.
Robert Meck,[1] Harrisburg.
O. E. Good,[1] Penbrook.
J. F. Adams,[2] Millersburg.
Katharine P. Smith,[1] Millersburg.
Elizabeth Reber,[1] Millersburg.
P. A. Fishel,[1] Harrisburg.
Arthur H. Hull,[1] Harrisburg.
M. A. Grove,[1] Harrisburg.
Edward G. Rose,[1] Harrisburg.
Edwin T. Keller,[1] Harrisburg.
Martha Trase,[1] Harrisburg.
Joseph A. Smyser,[1] Harrisburg.
W. S. Steele,[2] Harrisburg.
Anna M. Saul,[1] Harrisburg.
Charles S. Davis,[2] Steelton.
G. W. Hill,[1] Harrisburg.
C. W. Weigle,[2] High Spire.
Charles A. Miller,[1] Millersburg.
F. D. Keboch,[1] Williamstown.
M. E. Stine,[1] Elizabethville.
W. S. Hertzog,[4] Harrisburg.
J. I. Hamaker,[1] Harrisburg.
H. M. Weigel, Harrisburg.
F. E. Shambaugh,[2] Wiconisco.
C. D. Koch,[4] Harrisburg.
A. W. Lindsay,[1] Harrisburg.
Bertha G. Young,[1] Harrisburg.
Mary C. Orth,[1] Harrisburg.
M. Ward Fleming,[1] Harrisburg.
Elizabeth Craighead,[1] Harrisburg.
Jessie Barner,[1] Harrisburg.
Bertram W. Saul,[1] Harrisburg.
Katherine Zeider,[1] Harrisburg.
M. Lou Sheetz,[1] Harrisburg.
Bertha B. Hessing,[1] Harrisburg.
Mary B. Hessing,[1] Harrisburg.
Mary E. Richardson,[1] Harrisburg.
Geo. N. C. Henschaw,[1] Harrisburg.
Lillias S. Blackie,[1] Harrisburg.
Katherine M. McNiff,[1] Harrisburg.
William M. Fahnestock,[1] Harrisburg.
Zach. T. Meixel,[1] Harrisburg.
Lorena G. Evans,[1] Harrisburg.
George R. Hull,[1] Harrisburg.
J. F. Rees,[1] Harrisburg.
Charles B. Fager,[1] Harrisburg.
Roscoe Bowman,[1] Steelton.
D. F. Detter,[2] Williamstown.
H. E. Todd,[1] Harrisburg.
E. LeRoy Keen,[1] Wiconisco.
L. B. Nye,[1] Steelton.
Mary R. White,[1] Steelton.
Helen B. Shriver,[1] Harrisburg.
H. B. Garver,[1] Middletown.
Mrs. N. C. Schaeffer, Lancaster.
Bertha V. Haverstick,[1] Millersburg.
S. Gertrude Chapin,[1] Millersburg.

DELAWARE—2.

A. G. C. Smith,* Media.
Thomas S. Cole,* Chester.

ELK—14.

J. W. Sweeney,* Saint Mary's.
Ross A. Snyder,[2] Wilcox.
J. J. Lynch,* St. Mary's.
Amanda Wilcox,[1] Wilcox.
Katharine McKean,[1] Wilcox.
Hattie Hanson,[1] Wilcox.
Alice G. Houghtaling,[1] Wilcox.
Clare Garner,[1] St. Mary's.
Ida E. Wood,[1] Ridgway.
Margaret Flynn,[1] Ridgway.
Sadie Irvin,[1] Ridgway.
Anna C. Allison,[1] Ridgway.
Kate Hamilton,[1] Ridgway.
W. M. Peirce,[2] Ridgway.

ERIE—317.

I. H. Russell,* North East.
H. C. Missimer,* Erie.
John C. Diehl,[1] Erie.
G. G. von der Groeben,[1] Erie.
C. W. Trow,[1] Erie.
Jessie C. Leigh,[1] Erie.
Mary Gillespie,[1] Erie.
Susan A. Tanner,[1] Erie.
Winifred Riblet,[1] Erie.
Elmer G. Frail,[1] Erie.
Iva I. Brown,[1] Erie.
Gertrude F. Gaggin,[1] Erie.
Rose Whitney,[1] Erie.
Celestia J. Hershey,[1] Erie.
Anna McKean,[1] Erie.
Mabel E. Wheeler,[1] Erie.
Cora A. Smith,[1] Erie.
C. L. Arnold,[1] Erie.
Jas. R. Burns,[1] Erie.
Jessie J. Wheeler,[1] Erie.
Hattie M. Schabacker,[1] Erie.
Letitia R. Odell,[1] Erie.
Mary F. Supplee,[1] Erie.
W. E. Dimorier,[1] Erie.
Alice E. Gaggin,[1] Erie.
Florence N. Bassett,[1] Erie.
Bertha E. Coates,[1] Erie.
F. T. Chamberlain,[1] Erie.
Anna G. Sheehan,[1] Erie.
Jeannette Welsh,[1] Erie.
Mary Quinn,[1] Erie.
Elizabeth Johnson,[1] Erie.
Lena Paasch,[1] Erie.
Alice Low,[1] Erie.
Mary Ross,[1] Erie.
Lavina Creys,[1] Erie.
Nellie Missimer,[1] Erie.
Anna Sterrett,[1] Erie.
Minnie Kessler,[1] Erie.
Mary O'Dea,[1] Erie.
Maria S. Farley,[1] Erie.
Lillie Schabacker,[1] Erie.
Esther Cooley,[1] Erie.
Anna Mae Sullivan,[1] Erie.
Theo. Lewis,[1] Erie.
Margaret Lacey,[1] Erie.
Clara Johannesen,[1] Erie.
I. M. Salisbury,[1] Erie.
Myrtle Nicholson,[1] Erie.
Miss Garenflo,[1] Erie.
Clara Penske,[1] Erie.
Nan Joselyn,[1] Erie.
Emelia Bark,[1] Erie.
Daisy Ferrell,[1] Erie.
Amy Barnett,[1] Erie.
Louise Leech,[1] Erie.
Mabel Mulvogue,[1] Erie.
Jennie Creys,[1] Erie.
Mayme Grugin,[1] Erie.
May Wallace,[1] Erie.
Augusta Gerboth,[1] Erie.
Mary Flury,[1] Erie.
Annette Hulburd,[1] Erie.
Anna Donovan,[1] Erie.
Augusta Hampel,[1] Erie.
Elizabeth Carr,[1] Erie.
Helen Kolb,[1] Erie.
Carrie Leask,[1] Erie.
May McCarty,[1] Erie.
Nora O'Connor,[1] Erie.
Anna Loesch,[1] Erie.
Elsie Bell,[1] Erie.
Flora Hallinan,[1] Erie.
Augusta Burke,[1] Erie.
Mame Monahan,[1] Erie.
Mollie Knierem,[1] Erie.
Margery Tillotson,[1] Erie.
Leona Suttelle,[1] Erie.
Emma Klingel,[1] Erie.
Ernestine Mack,[1] Erie.
Maud E. Sloan,[1] Erie.
Cora Kline,[1] Erie.
S. Gwendolyn Leo,[1] Erie.
Jennie Leo,[1] Erie.
Elizabeth M. Bassett,[1] Erie.
Mary O'Connor,[1] Erie.
Mary Seawright,[1] Erie.
Louise Bach,[1] Erie.
Adelaide Bachman,[1] Erie.
Emma Shave,[1] Erie.
Gertrude Stiles,[1] Erie.
Emma Petrat,[1] Erie.
Carrie Reynolds,[1] Erie.
Rose Steiner,[1] Erie.
Margaret McCarty,[1] Erie.
Lydia Kern,[1] Erie.
May Suttelle,[1] Erie.
Matilda Stubbs,[1] Erie.
Anna Robinson,[1] Erie.
Winifred Moore,[1] Erie.
Sadie Wynne,[1] Erie.
Carrie Hubbard,[1] Erie.
Clara Marquardt,[1] Erie.
Ada Love,[1] Erie.
Gertrude Hemmerly,[1] Erie.
Annie Hamilton,[1] Erie.
Mary Rekopf,[1] Erie.
Gertrude Rowan,[1] Erie.
Marry Cullinan,[1] Erie.
Margaret Brown,[1] Erie.
Wilhelmina Miller,[1] Erie.
Susan Fean,[1] Erie.
Marison Johnson,[1] Erie.
Loretta Epply,[1] Erie.
Rose Scherscing,[1] Erie.
Ethel Moore,[1] Erie.
Katherine Fields,[1] Erie.
Anastasia English,[1] Erie.
Elizabeth Spafford,[1] Erie.
Nora I. McCarthy,[1] Erie.
Edna Allen,[1] Erie.
Marion Miller,[1] Erie.
Anna B. Moerschfelder,[1] Erie.
Anna Runser,[1] Erie.
Mayme Cantlon,[1] Erie.
Nellie Flanigan,[1] Erie.
Laura Stevens,[1] Erie.
Selma Schurz,[1] Erie.
Mary Peer,[1] Erie.
Laura Cramp,[1] Erie.
Emma Gorenflo,[1] Erie.
Amanda Strick,[1] Erie.
Jennie Hannon,[1] Erie.
Mattie Rudd,[1] Erie.
Joanna McCarthy,[1] Erie.
Minnie McCarthy,[1] Erie.
Dora Peer,[1] Erie.
Minnie Habercorn,[1] Erie.
Nellie Sullivan,[1] Erie.
Merna Perrin,[1] Erie.
Laura Paasch,[1] Erie.
Katherine Shanahan,[1] Erie.
Jessie Hendrie,[1] Erie.
Hetty Metz,[1] Erie.
Margaret McDonald,[1] Erie.
Anna Carrig,[1] Erie.
Mary Palmer,[1] Erie.
Sophia Gaggin,[1] Erie.
Helen Kane,[1] Erie.
Margaret Nash,[1] Erie.
Helma Fluegel,[1] Erie.
Ida B. Wiss,[1] Erie.
Clara Bickford,[1] Erie.
Anna Hurley,[1] Erie.
Anna Walsh,[1] Erie.
Emma E. Seay,[1] Erie.
Anna R. McLaughlin,[1] Erie.
Rose Carney,[1] Erie.
Minnie C. Willis,[1] Erie.
Sue B. Torrey,[1] Erie.
May E. Hemmerly,[1] Erie.
Edith Weidle,[1] Erie.
Cora Engstrom,[1] Erie.
Marie Hall,[1] Erie.
Bertha McLeod,[1] Erie.
Catherine Cruise,[1] Erie.
Elizabeth Wieland,[1] Erie.
Clara Dimpelfeld,[1] Erie.
Mary Purtle,[1] Erie.
Minnie Muellerstein,[1] Erie.
Anna Crowley,[1] Erie.
Ruth Lutje,[1] Erie.
Adda Miller,[1] Erie.
Charlotte Lutje,[1] Erie.
Margretta Taylor,[1] Erie.
Inez Torrey,[1] Erie.
Margaretta King,[1] Erie.
Estella Hutchins,[1] Erie.
Alice Wood,[1] Erie.
Ella Lynch,[1] Erie.
Bertha Walter,[1] Erie.
Mabel Austin,[1] Erie.
Edna Holley,[1] Erie.
Gertrude Sommers,[1] Erie.
Miss Semler,[1] Erie.
Emma Miller,[1] Erie.
Lillian McCarter,[1] Erie.
Harriet Cummins,[1] Erie.
Birtha Kuppler,[1] Erie.
Dora Bull,[1] Erie.
Daisy Boyd,[1] Erie.
Madeline Faustine,[1] Erie.
Lillian Slocum,[1] Erie.
Jennie Sullivan,[1] Erie.
Florence Gourley,[1] Erie.

Edna Frye,[1] Erie.
Florence Feist,[1] Erie.
Edith Bennett,[1] Erie.
Blanche Burton,[1] Erie.
Harriet E. Burgess,[1] Erie.
Emma Crook,[1] Erie.
Miss Moorehead,[1] Erie.
Miss Thompson,[1] Erie.
Miss Tracy,[1] Erie.
Miss Gleason,[1] Erie.
Miss McLaughlin,[1] Erie.
Miss Mong,[1] Erie.
Miss Wild,[1] Erie.
Miss Sepp,[1] Erie.
Miss J. Bachman,[1] Erie.
Miss Church,[1] Erie.
Miss Knoll,[1] Erie.
Miss Brindle,[1] Erie.
M. Hay,[1] Erie.
A. Welsh,[1] Erie.
Jennie Torrey,[1] Erie.
Minnie Johnston,[1] Erie.
Nellie Hay,[1] Erie.
M. Caskey,[1] Erie.
N. Link,[1] Erie.
Jennie Buelens,[1] Erie.
G. Billington,[1] Erie.
M. Wagner,[1] Erie.
T. Gallagher,[1] Erie.
Nettie Stiles,[1] Erie.
Sadie Winkler,[1] Erie.
Mabel Young,[1] Erie.
B. Riblet, Erie.
Calla Roth,[1] Erie.
Margaret Peer,[1] Erie.
Lena Herbst,[1] Erie.
Marion Derry,[1] Erie.
Clara Roth,[1] Erie.
Mary Coleman,[1] Erie.
Louise Paasch,[1] Erie.
Ruth Eichenbaul,[1] Erie.
Ella Sheridan,[1] Erie.
Etta Minnig,[1] Erie.
Zoe Heet,[1] Erie.
Miriam Schabacker,[1] Erie.
Sarah Hubley,[1] Erie.
Josephine Sullivan,[1] Erie.
Erie Teachers' Association,‡ Erie.
Burton R. Gray,[1] Harbour Creek.
John C. Prindel,[1] North East.
Irma Paddock,[1] McKean.
Tillie Prindle,[1] North East.
Mayme Brogdon,[1] Waterford.
Anna McMahon,[1] Erie.
Mary Goodban,[1] Girard.
Grace Goodban,[1] Girard.
Clara M. Goodban,[1] Girard.
George L. Hayes,[2] Girard.
Kaira Sturgeon,[5] Edinboro.
May Schilling,[1] Erie.
Bertha Peters,[1] North Girard.
Edna Strubel,[1] Avonia.
May Allgier,[1] Waterford.
Arthur Luther,[1] Girard.
Elsie A. Limber,[1] Albion.
Lucy Prindle,[1] Greenfield.
H. F. Cotter,[1] Erie.
Mabel Hayes,[1] Erie. R. D. No. 5.
Ruth Bacon,[1] Erie, R. D. No. 5.
Emma Brennan,[1] Waterford, R. D. 3.
J. M. Morrison,[2] North Girard.
Dolores Pherrin,[1] Erie, R. D. No. 8.
Mary McDonnell,[1] Waterford.
Agnes McDonnell,[1] Waterford.
Matie Thiem,[1] Corry.
Agnes E. Kaveny,[1] Erie, R. D. 6.
Amelia Reed,[1] Edinboro.
Sophia Reed,[1] Edinboro.
Effie L. True, Waterford.
G. B. Jones,[2] East Springfield.
John C. Jenkins,[1] Girard.
Anna Tracy,[1] Wattsburg.
Catherine Tracy,[1] Wattsburg.
Catherine Spath,[1] North East.
Sarah S. Church,[1] Union City.
Ira B. Peavy,[5] Edinboro.
Anna Youngs,[1] North East.
W. P. Stowe,[1] North East.
O. M. Thompson,[5] Edinboro.
Florence Lewis,[1] Albion.
D. O. Honkins,[2] Erie.
Alice Sullivan,[1] Erie.
J. A. Cooper, Edinboro.
Jennie Gilvair,[1] Union City.
Linn Fuller,[1] Wattsburg.
Carrie Stoughton,[3] Erie.
Sarah Kelley,[1] McLane.
Anna Michael,[1] Fairview.
S. C. Humes,[3] Union City.
Helena McCray,[1] Waterford.
Mazie Green,[1] Edinboro.
Margaret McLoughlin,[1] McKean.
Janet Gillespie,[1] Edinboro.
O. O. Coon,[1] Albion.
Louise Hewell,[1] East Springfield.
Mabel Carrier,[1] Corry, R. D.
Mildred E. Carrier,[1] Corry, R. D.
John R. Timmons,[2] Fairview.
Mrs. John R. Timmons,[1] Fairview.
John F. Bigler,[5] Edinboro.
Mary Orton,[1] North East.
Hazel Raymond,[1] North East.
Blanche E. De Wolfe,[1] Albion.
E. M. Sullivan,[1] Albion.
Eva Leopold,[1] Girard, R. D. No. 4.
Mrs. A. K. Root,[1] Erie.
Josephine Scouller,[1] North East.
Nan F. Scouller,[1] North East.
Mary Sterrett,[1] Girard.
Lizzie M. Taylor,[1] Waterford.
Clara Cline,[1] Edinboro.
Grace M. Price,[1] Waterford.

FAYETTE—10.

Clement G. Lewellyn,* Brownsville.
C. J. Scott,* Uniontown.
Magdalena Zufall,[1] Connellsville.
C. H. Schwab,[2] Connellsville.
C. B. Kistler,[1] Connellsville.
Bruce Cobaugh,[2] Connellsville.
Alice Neal,[1] Connellsville.
F. W. Wright,[2] Uniontown.
J. Buell Snyder,[3] Perryopolis.
George H. Bell,[2] Connellsville.

FOREST—1.

D. W. Morrison,* Tionesta.

FRANKLIN—2.

L. E. Smith,* Chambersburg.
Morris Hess,[2] Dry Run.

GREENE—1.

John C. Stewart,* Jefferson.

HUNTINGDON—2.

J. G. Dell,* Huntingdon.
Charles O. Frank,[2] Huntingdon.

INDIANA—1.

James F. Chapman,* Indiana.

JEFFERSON—10.

L. Mayne Jones,* Brookville.
Asa Wolfgang,[1] Heathville.
C. W. Breaky,[1] Stanton.
Fred Lehman,[1] Summerville.
Miles G. Morris,[1] Sigel.
Harry Haggerty,[1] Sigel.
C. A. Anderson,[1] Big Run.
Clyde Blose,[1] Sprankles Mills.
Lulu Fiddler,[1] Westville.
Fred A. Kohler,[1] Punxsutawney.

JUNIATA—2.

Josiah H. Deen,* Academia.
C. C. Book,[1] Port Royal.

LACKAWANNA—10.

J. C. Taylor,* Scranton.
W. A. Kelley,* Archbald.
M. W. Cummings,* Olyphant.
Thomas L. Gilmartin,* Carbondale.
C. F. Hoban,* Dunmore.
M. J. Lloyd,* Taylor.
George W. Phillips,‡ Scranton.
H. B. Anthony,[1] Peckville.
A. H. Welles,[2] Scranton.
R. P. Gleason,[2] Scranton.

LANCASTER—13.

M. J. Brecht,* Lancaster.
R. K. Buehrle,* Lancaster.
E. Oram Lyte,‡[5] Millersville.
J. P. McCaskey,‡ Lancaster.
G. Herman Goetz,[2] Lititz.
N. C. Norris,[2] Little Britain.
L. B. Earhart,[1] Mount Joy.
E. M. Hartman,[2] Lancaster.
B. W. Fisher,[2] Lancaster.
H. E. Slagenhaup,[1] Lancaster.
P. M. Harbold,[5] Millersville.
John D. Pyott,[1] Lancaster.
Iris Prouty,[5] Millersville.

LAWRENCE—39.

W. Lee Gilmore,* New Castle.
T. A. Kimes,* New Castle.
Mabel Allen,[1] New Castle.
C. Helen Norton,[1] New Castle.
Lois Allen,[1] New Castle.
Roberta Martin,[1] New Castle.
Hulda Peterson,[1] New Castle.
Marie Parker,[1] New Castle.
Alice Sterling,[1] New Castle.
Grace Smith,[1] New Castle.
Carrie White,[1] New Castle, R. D. 7.
Pearl White,[1] New Castle.
Elizabeth Ritchie,[1] New Castle.
Carrie L. Jeffrey,[1] New Castle.
Annie Wilson,[1] Moravia.
Nancy McConahy,[1] Volant.
George C. Thompson,[1] New Castle.
R. G. Leslie,[1] New Castle.
Olivia Griffiths,[1] New Castle.
Blanche Love,[1] New Castle.
L. K. Reed,[1] New Castle, R. D. 7.
J. P. Hervey,[1] New Castle.
Anna R. Perry,[1] New Castle.
Hazel M. Lutton,[1] New Castle.
Grace Boyd,[1] New Castle.
Gertrude Hughes,[1] New Castle.
May Martin,[1] New Castle.
Lucy Thatcher,[1] New Castle.
Pearl Merriman,[1] New Castle.
Maude Kennedy,[1] New Castle.
Ella Bentley,[1] New Castle.
Alma Locke,[1] New Castle.
Gertrude Yendole,[1] New Castle.
C. C. Sheaffer,[1] New Castle.
Olive Clinefelter,[1] Volant.
Bessie Frishkorn,[1] Elwood City.
G. A. Dickson,[2] New Castle.
Maud McCurdy, Edinburg.
James M. Hughes,[2] New Castle.

LEBANON—46.

John W. Snoke,* Lebanon.
Edgar Reed,* Lebanon.
W. H. Alspach,[2] Newmanstown.
Elizabeth M. Weidman,[1] Lebanon.
Emma M. Schmauk,[1] Lebanon.
Sara Helm,[1] Lebanon.
Sarah Musser,[1] Lebanon.
Edna Seltzer,[1] Lebanon.
Alice Gruber,[1] Lebanon.
Emma L. Gettel,[1] Lebanon.
Sybilla Doebler,[1] Lebanon.
Mary Beard,[1] Lebanon.
Emma L. Reinoehl,[1] Lebanon.
Harriet E. Hottenstein,[1] Lebanon.
Nellie R. Robb,[1] Lebanon.
K. Helen Schools,[1] Lebanon.
Ettie Evans,[1] Lebanon.
Elizabeth C. Rebstock,[1] Lebanon.
Arbelin M. Schropp,[1] Lebanon.
Helen S. Seltzer,[1] Lebanon.
Edith M. Hoffman,[1] Lebanon.
Lottie Y. Siegrist,[1] Lebanon.
Elizabeth Spayd,[1] Lebanon.
Mary Lehman,[1] Lebanon.
Maude Smith,[1] Lebanon.
Ida Kreider,[1] Lebanon.
Emily Coble,[1] Lebanon.
Mabel Brenholtz,[1] Lebanon.
Sallie Gassert,[1] Lebanon.
Ethel Kinter,[1] Lebanon.
K. Grace Weaber,[1] Lebanon.
Estella Bordner,[1] Lebanon.
Anna Euston,[1] Lebanon.
Sarah Gallagher,[1] Lebanon.
Elizabeth Yordy,[1] Lebanon.
Ruth Light,[1] Lebanon.
Olive Siegrist,[1] Lebanon.
Margaret Thomas,[1] Lebanon.
Agnes Scott,[1] Lebanon.
Emerson Heilman,[1] Cleona.
S. F. Pelton,[1] Lebanon.
J. J. Behney,[1] Lebanon.
R. P. Wolfersperger,[2] Bismark.
H. S. Light,[1] Palmyra.
Max F. Lehman,[1] Annville.
E. M. Balsbaugh,[2] Lebanon.

LEHIGH—3.

Alvin Rupp,* Allentown.
J. O. Knauss, Allentown.
H. J. Reinhart,[2] Catasauqua.

LUZERNE—12.

Frank P. Hooper,* Wilkes Barre.

James M. Coughlin,*‡ Wilkes Barre.
Joseph B. Gabrio,* Hazleton.
M. W. Garrette,[1] Hazleton.
S. P. Turnbach,[1] Hazleton.
Owen Sharkey,[1] Lattier Mines.
D. A. Harman,* Hazleton.
Charles A. Judge,[2] Pittston.
J. P. Breidinger,[2] Wilkes Barre.
S. B. Fare,[1] Wilkes Barre.
A. D. Thomas,[1] Hazleton.
Katharine Longshore,[1] Hazleton.

LYCOMING—121.

G. B. Milnor,* Muncy.
Charles Lose,* Williamsport.
Elizabeth Jewett,[1] Williamsport.
H. A. Sterner,[2] Williamsport.
Lilly S. Seitz,[1] Williamsport.
J. W. Gilmore,[2] Williamsport.
Mary C. R. Seaman,[1] Williamsport.
Florence Hadtner,[1] Williamsport.
Caroline M. Mills,[2] Williamsport.
Elizabeth Graybill,[1] Williamsport.
Mary A. Shorkley,[1] Williamsport.
Caroline McMinn,[1] Williamsport.
Annie B. Hill,[1] Williamsport.
Nellie Hedges,[1] Williamsport.
H. Edith Cawley,[1] Williamsport.
F. A. Lehman,[2] Williamsport
Florence T. Wilson,[1] Newberry.
Emma Nicely,[1] Williamsport.
Frances T. Gibson,[1] Newberry.
Carrie E. Reppard,[1] Newberry.
Emily Grier,[1] Williamsport.
Grace Bowers,[1] Newberry.
Jennie L. Davis,[1] Williamsport.
Lena Cupp,[1] Newberry.
Laura H. Johnson,[1] Williamsport.
Genevieve L. Bubb,[1] Williamsport.
Martha Schuyler,[1] Muncy.
Rhoda M. Leilich,[1] Williamsport.
Bertha Cady,[1] Williamsport.
Clara A. McCollum,[1] Williamsport
Charlotte P. Rice,[1] Williamsport.
Hadassa Balliet,[1] Williamsport.
Belle Dudley,[1] Williamsport.
Isabel Goehrig,[1] Williamsport.
Lulu Hartman,[1] Williamsport.
Emma Vollmer,[1] Williamsport.
Harriet Harey,[1] Williamsport.
Harriet L. Taylor,[1] Williamsport.
J. W. Stout,[2] Williamsport.
Jennie Heilhecker,[1] Williamsport.
A. Maie Farley,[1] Williamsport.
J. A. Stadden,[2] Williamsport.
Lulu Yount,[1] Williamsport.
Laura M. Freed,[1] Williamsport.
Lila M. Fisher,[1] Williamsport.
Alice S. Hess,[1] Williamsport.
Lydia Gilbert,[1] Williamsport.
Ralph E. Pepperman,[2] Williamsport.
Elizabeth W. Schleh,[1] Williamsport.
J. Fred McMurray,[2] Williamsport.
Katherine M. Cullian,[1] Williamsport.
Mary F. Gilmore,[1] Williamsport.
Ada Rook,[1] Williamsport.
Nelle Hopkins,[1] Williamsport.
Mae Stonesifer,[1] Williamsport.
Pauline Faber,[1] Williamsport.
Ella Stevenson,[1] Williamsport.
W. W. Stiber,[1] Williamsport.
H. E. Stabler,[1] Williamsport.
Rosa K. Reader,[1] Williamsport.
J. E. Williams,[2] Newberry.
A. L. Pepperman,[2] Williamsport.
Alice E. Platt,[1] Williamsport.
Caroline E. Stabler,[1] Williamsport.
Mable Collins,[1] Williamsport.
Mabel S. Hahn,[1] Williamsport.
Annie E. Donnel,[1] Williamsport.
Janet Ephlin,[1] Williamsport.
Isa R. Pratt,[1] Williamsport.
W. H. Bertin,[1] Williamsport.
Arthur Gilmore,[1] Williamsport.
Harry Houck,[1] Williamsport.
Emma Kiess,[1] Williamsport.
Matthias Entz,[1] Loyalsockville.
J. A. Kiess,[2] Williamsport.
Agnes W. Bennett.[1] Williamsport.
M. Lizzie Wood,[1] Williamsport.
Louise G. McMullen,[1] Williamsport.
Hiram Whitman,[1] Cogan Station.
Sadie Mack,[1] Williamsport.
G. A. Ferrell,[2] Montgomery.
Edna Heberling,[1] Muncy.
Aura Minsker,[1] Montgomery.
Cora Rinn,[1] Jersey Shore.
Mrs. Emma Hastings,[1] Vilas.
Allie Sullivan,[1] Jersey Shore.
J. E. Klepper,[2] Montoursville.
David Updegraff,[1] Montoursville.
Elizabeth Bird,[1] Montoursville.
Blanche Bird,[1] Montoursville.
Maude Bastian,[1] Buttonwood.
D. B. Little,[2] Picture Rocks.
W. E. Yoder,[2] Jersey Shore.
M. Lou Parker,[1] Jersey Shore.
C. B. Renn,[2] South Williamsport.
Ernest Hand,[1] South Williamsport.
H. A. Spotts,[2] Muncy.
W. W. Raker,[1] Muncy.
Margaret Fessler,[1] Muncy.
Ida Stokes,[1] Muncy.
Mrs. Martha Reed,[1] Mountoursville.
Mrs. Martha Beeber,[1] Muncy.
Edna Schoch,[1] Muncy.
Jessie Shoemaker,[1] Muncy.
Roland T. McClaren,[2] Williamsport.
Blanche Balliet,[1] Williamsport.
Mary F. Hunt,[1] Williamsport.
Virginia Martin,[1] Williamsport.
Grace Speaker,[1] Williamsport.
Mrs. E. S. Reider,[1] Hughesville.
Gertrude Siegfried,[1] Hughesville.
Rebecca Springer,[1] Hughesville.
Esther Michael,[1] Hughesville.
Margaret Kutz,[1] Hughesville.
Harry K. Willis,[1] Hughesville.
Lulu C. Tyson,[1] Hughesville.
J. G. Dundore,[2] Hughesville.
P. M. Bullard,[2] Williamsport.
Martha C. Thatcher,[1] Williamsport.
Gertrude A. Myers,[1] Williamsport.
L. J. Ulmer,[1] Williamsport.

MCKEAN—5.

Thomas G. McCleary,* Kane.
Edward E. Schermerhorn,* Bradford.
F. R. Neild,[2] Kane.
Alice Calburn,[1] Bradford.
Caroline Putnam,[1] Newerf.

MERCER—63.

Samuel H. Hadley,* Sharon.
Mary Franey,[1] Sharon.
May Stewart,[1] Sharon.
Elizabeth McDonald,[1] Sharon.
Sarah Kennedy,[1] West Middlesex.
Ella Boyce,[1] Sharon.
Hattie Lyman,[1] Sharon.
Margaret Thompson,[1] Sharon.
Sara Hallis,[1] South Sharon.
Ethel Jones,[1] Sharon.
Ambretta Thompson,[1] Sharon.
Daisy Downs,[2] South Sharon.
Fannie Stewart,[1] South Sharon.
Mrs. Mabel Horton,[1] Sharon.
Ada Yahres,[1] Sharon.
Sadie Barry,[1] Sharon.
Mary Crain,[1] Sharon.
Martha Brown,[1] Sharon.
Maude Blair,[1] Sharon.
Mrs. Anna Lewis,[1] Sharon.
Minnie Daugherty,[1] Sharon.
Mary Cave,[1] Sharon.
Armie Marsteller,[1] West Middlesex.
Clara Morrison,[1] Transfer.
Gertrude DeFrance,[1] Sharon.
Carrie Durham,[1] Sharon.
Florence Albin,[1] Sharon.
Rebecca Nicholls,[1] Sharon.
Mary Nicholls,[1] Sharon.
C. G. Canon,[2] Sharon.
Lily Dickinson,[1] Sharon.
Estella Madden,[1] Sharon.
Anna Kerr,[1] Sharon.
Anna Hess,[1] South Sharon.
Birdie Johnston,[1] Mercer, R. D. 9.
Mary Wood,[1] Sharon.
Carrie Van Orsdell,[1] Sharon.
Belle Marsteller,[1] West Middlesex.
Harriet E. Robinson,[1] Grove City.
Mabel F. Miller,[1] Stoneboro.
Bessie Taylor,[1] Sharon.
May Bird,[1] Sharon.
Adele Sarver,[1] Sharon.
Catherine Schweitzer,[1] Sharon.
Minnie McMaster,[1] Jamestown.
Georgina Flinn,[1] Sharon.
Edna Hamilton,[1] Sharon.
Mary Woods,[1] Clark.
Mabel Morrison,[1] Transfer.
Esther Gealey,[1] Sharon.
Margaret Bowden,[1] Sharon.
Mary McCrumb,[1] Jamestown.
Clara Purcell,[1] Sharon.
Grace Graham,[1] Mercer.
Mabel Welch,[1] Jamestown.
C. Blaine Smathers,[2] Grove City.
G. B. Gerberich,* Greenville.
Artie Sample,[1] Sharon.
Harry Unangst,[1] Sharon.
Lucy Welty,[1] Greenville.
Alma E. Welker,[1] Mercer.
Margaret Evans,[1] Sharon.
W. Earle Bachop,[1] Sheakleyville.

MIFFLIN—5.

James F. Wills,* Belleville.
William F. Kennedy,* Lewistown.
Margaret McCormick,[1] Yeagertown.
John B. Boyer,[2] Milroy.
A. P. Weaver,[2] Yeagertown.

MONROE—1.

Frank Koehler,* Stroudsburg.

MONTGOMERY—9.

J. Horace Landis,* Norristown.
W. W. Rupert,* Pottstown.
A. S. Martin,* Norristown.
H. G. Wightman,* Ardmore.
Wilmer K. Groff,[2] Jenkintown.
John J. Leckie, Cheltenham.
J. L. Eisenberg,[2] Royers Ford.
Warren R. Rahn,[2] Ambler.
E. L. Flack,[3] Abington.

MONTOUR—2.

Charles W. Derr,* Washingtonville.
D. N. Dieffenbacker,* Danville.

NORTHAMPTON—40.

George A. Grim,* Nazareth.
Fred. W. Robbins,* Bethlehem.
Owen R. Wilt,* South Bethlehem.
E. C. Lavers,* Pen Argyl.
W. D. Landis,* Siegfried.
J. W. Gruver,* Bangor.
A. S. Gruver,[1] Bethlehem.
Anna M. Goth,[1] Bethlehem.
Kate A. Lees,[1] Bethlehem.
Laura A. Nolf,[1] Bethlehem.
G. O. Billheimer,[6] Bethlehem.
F. J. Overfield,[1] Bethlehem.
Jean C. McCreary,[1] Bethlehem.
Marion H. Murray,[1] Bethlehem.
Louise R. Bischoff,[1] Bethlehem.
Sallie H. Villee,[1] Bethlehem.
C. Edith Nickum,[1] Bethlehem.
Gertrude E. Paules,[1] Bethlehem.
Helen G. Bieber,[1] Bethlehem.
I. H. Bartholomew,[1] Bethlehem.
William H. Pomp,[1] Bethlehem.
Ella Heberling,[1] Bethlehem.
W. D. Seyfried,[1] Bethlehem.
Anna Murray,[1] Bethlehem.
Gertrude Hafner,[1] Bethlehem.
Katherine Musselman,[1] Bethlehem.
Julia Schroeder,[1] Bethlehem.
Agnes M. Ross,[1] Bethlehem.
B. D. Kurtz,[1] Bethlehem.
Howard E. Shimer,[2] Nazareth.
J. E. Wagner,[1] Belfast.
T. C. Strock,[2] Bethlehem.
W. A. Jones,[2] Easton.
A. J. Reinhart,[2] Hellertown.
W. S. Gruver,[1] Easton.
H. W. Shimer,[2] Siegfried.
M. A. Richards,[2] South Bethlehem.
W. C. Sampson,[2] Bethlehem.
Alvin Davison, Easton, L. C.
Clara Sassaman,[1] South Bethlehem.

NORTHUMBERLAND—39.

Joseph Howerth,* Shamokin.
W. A. Wilson,* Milton.
Samuel H. Dean,* Mt. Carmel.
S. C. Yocum,* Shamokin.
I. C. M. Ellenberger,* Sunbury.
Edward Weidenhamer, Milton.
Joseph S. Knapper,[1] Sunbury.
May H. Congdon,[3] Milton.
Frank L. Yost,[2] Milton.
Harry Seiler,[1] Milton.
Cora B. Suiter,[1] Milton.
Estelle Rippel,[1] Milton, R. F. D. No. 1.

Ella Gibson,[1] Milton.
Alice Foust,[1] Milton.
Hannah Mervine,[1] Milton.
Flo Snoddy,[1] Watsontown.
Kate Bogle,[1] Milton.
Alice Andrews,[1] Milton.
Mrs. Low Hartman,[2] Milton.
Martha Aunkst,[1] Milton.
Sadie Dewald,[1] Milton.
Emma Bound,[1] Milton.
Martha Rippel,[1] Milton, R. F. D. No. 1.
Laura Hoffman,[1] Milton.
Katherine Smith,[2] Milton.
Emma Dentler,[1] Milton.
Mollie Smith,[1] Milton.
Mabel Yeager,[1] Milton.
Blanche Houghland,[1] Milton.
Bertha Coleman,[1] Milton.
Lizzie Love,[1] Milton.
Mary Lowrie,[1] Milton.
W. S. Leiby,[2] Milton, R. F. D. No. 2.
Jeannette Funk,[1] Milton.
Arial Kromer,[1] Milton.
Mrs. Cecilia Hinkson,[1] Milton.
Mary Harris,[1] Milton.
Nelle Bound,[1] Milton.
Cora Weiss,[1] Milton.

PERRY—3.

Daniel A. Kline,* New Bloomfield.
W. Morton Edwards,[5] Duncannon.
Mary M. Shull,[1] New Bloomfield.

PHILADELPHIA—13.

M. G. Brumbaugh,*‡ 696 City Hall.
J. H. Michener,‡* 4512 Regent St.
Cheesman A. Herrick,*‡ Girard College.
John L. Shroy,*‡ 2810 N. Broad St.
Edward Brooks,‡ 5971 Drexel Road.
Elizabeth Lloyd,[1] Friends Intelligencer Office.
A. Duncan Yocum,[1] University of Penna.
A. J. Pfaff, 1020 Arch St.
Fred S. Hall,[6] 1338 Real Estate Trust Bldg.
Parke Schock,[1] Wm. Penn High School.
T. W. Bevan, 1517 Montgomery Av.
M. A. Bryant, Perry Building.
J. L. Sigmund, Philadelphia.

PIKE—1.

Lucian Westbrook,* Matamoras.

POTTER—1.

R. O. Welfling,* Coudersport.

SCHUYLKILL—8.

Livingston Seltzer,* Pottsville.
G. W. Weiss,‡ Schuylkill Haven.
H. H. Spayd,‡ Minersville.
W. M. Yeingst,[3] Minersville.
Kate S. Richards,[1] Minersville.
Helen G. James,[1] Minersville.
T. E. Garber,[2] Ashland.
E. P. Heckert,[2] Schuylkill Haven.

SNYDER—1.

T. A. Stetler,* Middleburg.

SOMERSET—1.

D. W. Seibert,* Somerset.

SULLIVAN—1.

J. E. Reese Killgore,* Dushore.

SUSQUEHANNA—4.

George A. Stearns,* Kingsley.
John S. Hosterman,[2] Montrose.
Julia Swadener,[1] Montrose.
Mable Fawler,[1] Montrose.

TIOGA—2.

W. R. Longstreet,* Mansfield.
Andrew Thomas Smith,[5] Mansfield.

UNION—4.

William W. Spigelmyer,* Millmont.
H. T. Meyer, Lewisburg.
B. B. Kuhns,[2] West Milton.
Elbina Bender,[1] Lewisburg.

VENANGO—31.

James J. Palmer,* Oil City.
N. P. Kinsley,* Franklin.
Stella Bell,[1] Franklin.
Ethel Barnes,[1] Franklin.
Neva Creighton,[1] Franklin.
Sarah C. Corbett,[1] Franklin.
Dorah J. Donaldson,[1] Franklin.
Almyra Eshelman,[1] Franklin.
Mary Elliott,[1] Franklin.
Julia Fenner,[1] Franklin.
Mary Gyder,[1] Franklin.
Gertrude Gaylord,[1] Franklin.
Ruth Gealy,[1] Franklin.
Ina Hoover,[1] Franklin.
Esther R. Kerr,[1] Franklin.
W. G. Lads,[1] Franklin.
Grace Moore,[1] Franklin.
Theresa Martin,[1] Franklin.
Adda McBride,[1] Franklin.
Mayme O'Brien, Franklin.
Effa Plance,[1] Franklin.
Clare Platt,[1] Franklin.
Annex Walker,[1] Franklin.
Jessie Wynne,[1] Franklin.
Flora Black,[1] Franklin.
Helen S. Birge,[1] Franklin.
Rachel Brady,[1] Franklin.
Louise Bonham,[1] Franklin.
Mary Borland,[1] Franklin.
L. E. Cross,[1] Franklin.
C. S. Webb,[2] Franklin.

WARREN—95.

C. S. Knapp,* Warren.
R. T. Adams,* Warren.
T. H. Gaige,[1] Warren.
Clare C. Rossell,[2] Chandlers Valley.
Charles C. Burch,[1] Sugargrove.
Elizabeth Ronne,[1] Warren.
Elizabeth Wagenknecht,[1] Tidioute.
Mabel Tome,[1] Corydon.
Oressa Johnson,[1] Parthenia.
Floy Lawson,[1] Sugargrove.
Lillian Anderson,[1] Sugargrove, R. D.
Olive Palmer,[1] Sugargrove.
Flossie Broughton,[1] Sugargrove.
Mary Stuart,[1] Sugargrove.
Ethel Magnuson,[1] Sugargrove.
E. L. Monroe,[3] Columbus.
Lester Kerney,[1] Tidioute, R. D. 2.
Elizabeth Keating,[1] Tidioute.
Grace M. Schuler,[1] Corydon.
Mabel Brown,[1] Tidioute.
Edna Averill,[1] Tidioute.
Edith Stright,[1] Tidioute.
Norman P. Bish,[1] Tidioute.
Lena Duprey,[1] Youngsville.
Mabel Wenzel,[1] Warren, R. D. 2.
Anna Wenzel,[1] Russell.
Katherine Laufenburg,[1] North Warren.
Edna B. Denniston,[1] Warren.
Gertrude I. Grosch,[1] Warren, R. D. No. 2.
F. L. Jones,[1] Pittsfield.
Elizabeth Kirberger,[1] North Warren.
Millie B. Thompson,[1] Grand Valley.
Grace Stedwell,[1] Grand Valley.
Ada Peterson,[1] Chandlers Valley.
Emma Hultquist,[1] Warren, R. D. 3.
Phoebe L. Finley,[1] Warren.
Carlton L. Barnes,[1] Columbus.
Josephine La Vigne,[1] Warren, R. D. No. 3.
Emma Eckdahl,[1] Warren, R. D. 3.
Kate Hultberg,[1] Chandlers Valley.
Coral Holcomb,[1] Tidioute.
Laura K. Snyder,[1] Warren.
Mary A. Slater,[1] Youngsville.
Ida C. Norman,[1] Pittsfield.
Nellie A. Knapp,[1] Youngsville.
Elizabeth Christie,[1] Irvine.
D. W. Mead,[1] Youngsville.
Kathryn Agnew,[1] Youngsville.
Gustie Johnson,[1] Youngsville.
Georgia Kinnear,[1] Youngsville.
F. S. Heinaman,[2] Youngsville.
Marion Sill,[1] Youngsville.
Mollie Wagner,[1] Russell.
Etta C. Rexford,[1] Russell.
Jefferson Sears,[1] Akeley.
Helen Keating,[1] Irvine.
Grace Randall,[1] Russell.
Gene Howard,[1] Akeley.
Robert Young,[1] Russell.
Katie Akeley,[1] Russell.
Anna Vanman,[1] Akeley.
Minnie Ferry,[1] Warren.
E. M. Mixer,[3] Sheffield.
Kittie Mead,[1] Sheffield.
Daisy Hanchette,[1] Sheffield.
Mabel A. Alling,[1] Barnes.
Florence E. Anderson,[1] Youngsville.
A. L. Putnam,[6] Clarendon.
Mabel St. Clair,[1] Clarendon.
Tillie Steinhoff,[1] Clarendon.
Belle Seeley,[1] Clarendon.
Jessie Drayne,[1] Clarendon.
Elizabeth Garner,[1] Clarendon.
Mrs. Ada Unger,[2] Warren.
Mae Mooney,[1] Warren.
O. B. Kelley,[2] Warren.
Elizabeth Baldensperger,[1] Warren.
Genevieve Million,[1] Clarendon.
Amy Irvine,[1] Clarendon.
Macie Flower,[1] Warren.
Virginia Stewart,[1] Tiona.
Geo. R. McIntosh,[2] Kinzua.
Grace Mahaffey,[1] Kinzua.
Mae Libby,[1] Kinzua.
Mrs. Ida E. Brainard,[1] Warren.
Addison White,[1] Warren.
Nellie Dunlap,[1] Warren.
Edith Langdale,[2] Warren.
Ellen T. Glenn,[1] Warren.
Hattie L. Slayton,[1] Warren.
Mrs. Blanche McClintock,[2] Warren.
P. W. M. Pressell,[3] Warren.
Nellie Bumpus,[1] Warren.
Bessie Johnson,[2] Warren.
Sadie Darling,[1] Warren.

WASHINGTON—4.

L. R. Crumrine,* Washington.
James G. Pentz,* Charleroi.
H. B. Davis,[5] California.
Mary B. Collins,[1] Monongahela.

WAYNE—2.

J. J. Koehler,* Honesdale.
Mark Creasy,[1] Hawley.

WESTMORELAND—16.

Robert C. Shaw,* Greensburg.
Theo. B. Shank,* Jeannette.
Fred. L. Bach,[2] Parnassus.
Thomas S. March,‡* Greensburg.
Charles B. Francis,[1] Scottdale.
B. G. Graham,[2] Greensburg.
C. R. Shultz,[2] Scottdale.
Norman Henry,[1] Greensburg.
J. S. Harkins,[1] Greensburg.
Landis Tanger,[1] Scottdale.
H. L. Creamer,[1] Greensburg.
Myrtle Herbert,[1] Scottdale.
J. M. Highberger,[1] West Newton.
Winifred Miller,[1] Vandergrift.
Nathan Phillips,[1] Monessen.
Betsey Gourley,[1] Vandergrift.

WYOMING—3.

Frank H. Jarvis,* Tunkhannock.
I. T. Kepperley,[2] Tunkhannock.
C. W. Hower,[1] Tunkhannock.

YORK—7.

C. W. Stine,* York.
J. C. Carey,* Hanover.
Atreus Wanner,* York.
E. A. Nace,[1] Glen Rock.
E. U. Aumiller,[2] Wrightsville.
C. G. Grim,[2] Windsor.
C. B. Pennypacker,[1] York.

OTHER STATES—14.

Frances Miller,[1] Akron, Ohio.
Albert H. Watkins, Naples, N. Y.
Miles E. Holden, Springfield, Mass.
J. H. O'Donnell, 377 Broadway, N. Y.
Leonard P. Ayres, 1 Madison Avenue, N. Y.
E. Mackey,‡* Trenton, New Jersey.
Z. H. Snyder,‡* Greeley, Colorado.
H. A. Hompe, 34 W. 33d St., N. Y.
E. S. Latimer, Boston, Mass.
H. W. Baker, Springfield, Mass.
Austin M. Leavens, 30th St. & 4th Ave., N. Y.
Laura Worden, Ceres, New York.
Maude McCurdy, Lowellville, O., R. D. No. 2.
E. J. Shives,‡* Menominee, Mich.

TOTAL—1783.

EDUCATIONAL VALUE.—When Dr. Lowell Mason returned from his studies in Europe, in 1840, there was no stronger desire in his heart than to introduce the study of music into the public schools of his native land, as he found it in all the schools of every grade in Germany. This became one of the most determined purposes of his professional life, and, though he did not live to carry it out in full, the amount of success that crowned his efforts, in spite of prejudice and opposition, as well from the musical as the unmusical, was, in his often-expressed opinion, the great achievement of his life. His first success was only to secure a half-hour of recess from study, once a week, in some half-dozen schools in and about Boston, in order "that he might amuse and interest the pupils by singing to and with them." His thought, however, was not merely to entertain the scholars—not to provide an interesting and innocent manner of spending a recess—but to make music a branch of study, co-ordinate with the others pursued in the schools. In these thirty years or more since that time the public sentiment in regard to the matter has undergone great changes, so that the question now is not at all as he found it, nor indeed

FAIR AS THE MORNING.

G. E. ROOT.
Per JOHN CHURCH & Co.

1. Fair as the morn-ing, bright as the day, Vis - ion of beau - ty, fade not a - way,
2. An - gel of slum-ber, bright as the day, Vis - ion of beau - ty, tar - ry for aye:
3. Fain would I tell thee all I have known, Dreaming and bless-ed, wak - ing a - lone
O - ver the moun - tain, o - ver the sea, Come in sweet dreams to me.
Chase from my spir - it shad - ows of care, Leave but thy pres - ence there.
Vis - ion of beau - ty, tar - ry for me, Un - der the Dream-land tree.
Chorus.
Far and wide the e - choes roll a - long, While the day - world sings its bu - sy song;
But what are all its la - bors to me, Un - der the Dream-land tree.

precisely as he left it. It is now almost universally admitted that singing is so important an element in the emotional and moral atmosphere of the school-room, that no wise teacher is willing to do his work without it; but there seems yet to be very little opinion, and no systematic work whatever, that is based upon a correct estimate of the value of music as a means of education and culture co-ordinate with history, poetry, and mathematics. The most advanced feeling seems to be that it is a valuable, and perhaps even ennobling recreation and, in some cases also, a useful acquirement for the entertainment of friends, or the possible procurement of a livelihood in the event of need; but this estimate is only secondary and wholly unworthy. Music should take rank among the most important means by which educators seek to secure for their pupils symmetrical development of mind and character. Let it be clearly understood, that by *music* is here meant not merely the power to sing or play, but a comprehensive, though not neccessarily exhaustive, study of the principles and practice of this most attractive art.—*Blodgett.*